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TRENDS IN



India's

AGRICULTURAL TRADE //

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7a FOREIGN AGRICULTURAL ECONOMIC REPORT NO. 15 //

U. S. DEPARTMENT OF AGRICULTURE • ECONOMIC RESEARCH SERVICE • REGIONAL ANALYSIS DIVISION //

PREFACE AND ACKNOWLEDGMENT

India occupies a key position in the world economy. Many countries, including the United States, have a major interest and stake in India's future. Realizing this, a group of leading Western powers formed an Aid-to-India consortium a few years ago. This group agreed to provide foreign exchange needed to enable India to reach the goals of its Third 5-Year Plan.

At this juncture, approaching the midpoint of the Third 5-Year Plan, it is appropriate to examine the situation closely with regard to agricultural trade. What are the trends in India's agricultural exports? Are they such as to make the plan goals for 1965/66 seem realistic? What are the trends in agricultural imports? Are imports of food grains diminishing in line with the stated goal of food grain self-sufficiency by 1965/66? This study seeks to provide information useful in answering such questions.

Preparation of this report in the short time available would not have been possible without the assistance in planning and writing of Lester R. Brown, Regional Economist, and the advance design and preparation of a large portion of the data by William F. Hall and Edith Allen.

5a
Washington, D. C.

12
February 1964

SUMMARY

India's agricultural exports, averaging over \$500 million per year, account for about 40 percent of total foreign exchange earnings. Tea, the leading export commodity, accounts for half of all agricultural exports. Among other export commodities are shelled cashew nuts, cotton, vegetable oils (largely peanut and castor oil), and spices (largely pepper). Most of these commodities earn from \$20 million to \$40 million of foreign exchange each year. Coffee, sugar, and feedstuffs are relatively new on the export list. These commodities earned only \$1.5 million in 1951, but by 1961 their combined yearly earnings amounted to nearly \$90 million.

The United Kingdom is India's leading export market, taking about half of its agricultural exports and the major share of tea exports. The United States ranks second, taking an average of \$84 million worth of farm products per year. The remainder go to a large number of relatively minor markets for Indian products, such as Japan, Canada, Australia, West Germany, and the Soviet Union.

Agricultural imports, averaging about \$578 million per year during the past decade, are dominated by wheat, rice, and cotton. Wheat is the leading commodity, accounting for about one-third of all agricultural imports. Other important imports are raw cashew nuts (virtually all are exported after shelling and packing), tobacco, nonfat dry milk, and rubber. Somewhat unusual is the fact that each of these agricultural commodities is an important domestic crop. Yields of almost all are low; if yields can be raised, an important drain on India's scarce foreign exchange might be reduced or eliminated.

The United States, the principal supplier of wheat and a supplier of rice, is India's leading source of agricultural products. Other countries are important in supplying particular commodities: Burma for rice; Mozambique and Tanganyika for cashew nuts; Egypt, Kenya, and Sudan for cotton.

India's agricultural trade with the United States illustrates the impact on U.S. agricultural exports of the Food for Peace program (Public Law 480) and India's food deficit. Exports of U.S. agricultural products to India climbed from \$54 million in 1953 to an average of over \$200 million beginning in 1957. More than 80 percent of these exports were financed under Title I of Public Law 480. India receives about one-third of total P. L. 480 disbursements. These food imports for local currency have done much to ease India's foreign exchange shortage. India's exports to the United States have varied between \$70 million and \$80 million in most years.

Foodstuffs have dominated India's agricultural imports, but the food share of agricultural exports has averaged only about 15 percent. (Tea does not yield calories and is not classified as a food in this report.) Food imports since 1957 have provided more than 75 calories per person per day.

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TRENDS IN INDIA'S AGRICULTURAL TRADE

by Stanley I. Richards,
International Economist, Regional Analysis Division
Economic Research Service¹

India, with a population exceeding 450 million, is the world's second most populous country. It is largely agrarian; 70 percent or more of the people live in rural areas. Further, it is subsistence-oriented. Incomes are low, averaging only \$60 to \$70 per year. Well over half of per capita income is required for food.

Agricultural techniques in India have changed little over the centuries. Capital is scarce and yields are low. Rice yields are a third those of the United States and wheat yields are little more than half. Although only one-third the size of the United States, India has about the same land area under cultivation (325 million acres). India, however, has to support 2.4 times the population of the United States. There is very little additional land suited to cultivation. Consequently, if production is to be increased, yields must be raised. This usually requires capital, which is scarce.

One-seventh of the world's people live in India, but India accounts for only 1 percent of world trade. Agricultural exports, valued at over \$500 million annually, are largely nonfood commodities. Agricultural imports are mostly foodstuffs.

India is the largest recipient of food under the U.S. Food for Peace program (Public Law 480). Having to feed 10 million more people each year--approximately the population of Australia--India has turned extensively to external sources for its food supply. Once a net exporter of food, India now imports the equivalent of nearly 100 calories per citizen per day.

ECONOMIC PLANNING (12)²

Now in the midst of its Third 5-Year Plan (fiscal year 1961/62 through 1965/66), India has emphasized economic planning in organizing and mobilizing resources for development. The two previous 5-Year Plans were for fiscal years 1951/52 through 1955/56 and 1956/57 through 1960/61. The plan is a set of production goals designed to balance competing demands with available resources in a comprehensive and feasible manner. Therefore, production targets of the plans should represent expected, as well as desired, levels of attainment.

Two sets of 5-Year Plan targets closely relate to agricultural trade: targets for domestic production of exported and imported commodities and targets for export expansion. Domestic production goals are particularly relevant because of their impact both on imports and exports. The bulk of India's agricultural imports are food products and cotton; much larger quantities of these commodities are produced domestically than are imported. The possible volume of exports hinges on the attainment of an exportable surplus.

¹ Mr. Richards is now Staff Assistant to Director of Office of Management Services. This report was prepared during assignment to Regional Analysis Division as part of the Management Intern Program of OMS.

² Figures in parentheses refer to items in Bibliography, p. 35.

The most significant domestic production targets for imported commodities are those for food grains and cotton. India plans to reach self-sufficiency in food grain production by 1965/66, the last year of the Third 5-Year Plan. The food grain production target is 100 million tons, an increase of 31.6 percent from the 1960/61 level, or a rise of about 6 percent per year. This annual rate of growth is about 1 percent greater than occurred in the Second 5-Year Plan. The cotton production target is 5.7 million bales (500 lbs. gross weight per bale), 37 percent above 1961. The cashew nut production target is 150,000 tons, more than double production in 1961.

Production targets for exportable commodities do not generally represent as rapid a rate of increase. The goal for tea production is 24 percent above 1960/61 output by 1965. This compares with an increase of 18 percent over the previous 10 years. Most of the planned increase (175 million pounds) is expected to flow into exports. Some other commodity production goals and their relation to 1960/61 production are as follows: sugarcane at 10 million tons, up 25 percent; oilseeds at 9.8 million tons, up 38 percent; tobacco at 325,000 tons, up 8 percent; and wool at 90 million pounds, up 25 percent. All of these represent very substantial production increases. Accelerating the growth rate over such a broad segment of agriculture will be an outstanding achievement, if it can be accomplished.

The export expansion goal, if achieved, will be equally outstanding: Raise average annual exports during the Third Plan period 21 percent (\$272 million) above the average of \$1,282 million during the Second Plan period (table 1). Second Plan exports, however,

Table 1.--India: Foreign exchange receipts, First, Second, and Third 5-Year Plans

Item	First Plan 1951/52- 1955/56 Actual	Second Plan 1956/57- 1960/61 Actual	Third Plan 1961/62- 1965/66 Target	Third Plan increase over Second Plan	Percent Third Plan increase over Second Plan
	----- <u>Million dollars</u> -----				<u>Percent</u>
<u>Total Receipts</u>					
Exports.....	6,390	6,411	7,770	1,359	21.2
External assistance (excluding P.L. 480).	² 630	1,947	5,460	3,513	180.4
Total foreign exchange availabilities ¹	(³)	10,135	12,075	1,940	19.1
(P.L. 480).....		(1,121)	(1,260)		
<u>Average Annual Receipts</u>					
Exports.....	1,278	1,282	1,554	272	21.2
External assistance (excluding P.L. 480).	126	389	1,092	703	180.4
Total foreign exchange availabilities ¹	(³)	2,027	2,415	388	19.1
(P.L. 480).....		(224)	(252)		

¹ Includes invisibles, net capital transactions, and draft on foreign exchange reserves. Excludes P.L. 480.

² (13) p. 153.

³ Not available in this form from Indian 5-Year Plan source.

Source: (12), pp. 112 and 135.

were only 0.3 percent above the First Plan level. Exports the final year of the Second Plan were \$1,354 million. Another significant dimension of the problem is the response of importing nations and competing exporters to India's export expansion efforts.

The export expansion goal of the Third Plan is important to the plan's accomplishment. The increase would provide an additional \$1.3 billion for capital goods and intermediate-goods imports. A serious shortfall in exports may not be met by an expanded level of foreign assistance, because the plan already anticipates a 180 percent increase in foreign assistance, from \$1.95 billion to \$5.46 billion. India's gold and foreign exchange reserve is already too low to finance a large deficit.

BALANCE OF PAYMENTS (17, 18)

India's balance of payments deteriorated very rapidly with the initiation of the Second 5-Year Plan in 1956, and reached a peak trade deficit of \$864 million in 1957 (fig. 1).³ Following this peak additional measures were taken to eliminate so-called nonessential items from imports and expand exports. Despite these efforts the deficit continues to remain large. The average annual deficit in 1958-61 was \$758 million compared with \$185 million in 1951-55. Examination of figure 1 indicates the stabilization of this high-level trade deficit.

The rapid increase in the trade deficit during 1956 and 1957 resulted almost entirely from a very abrupt and rapid rise in the level of imports during those years. Exports

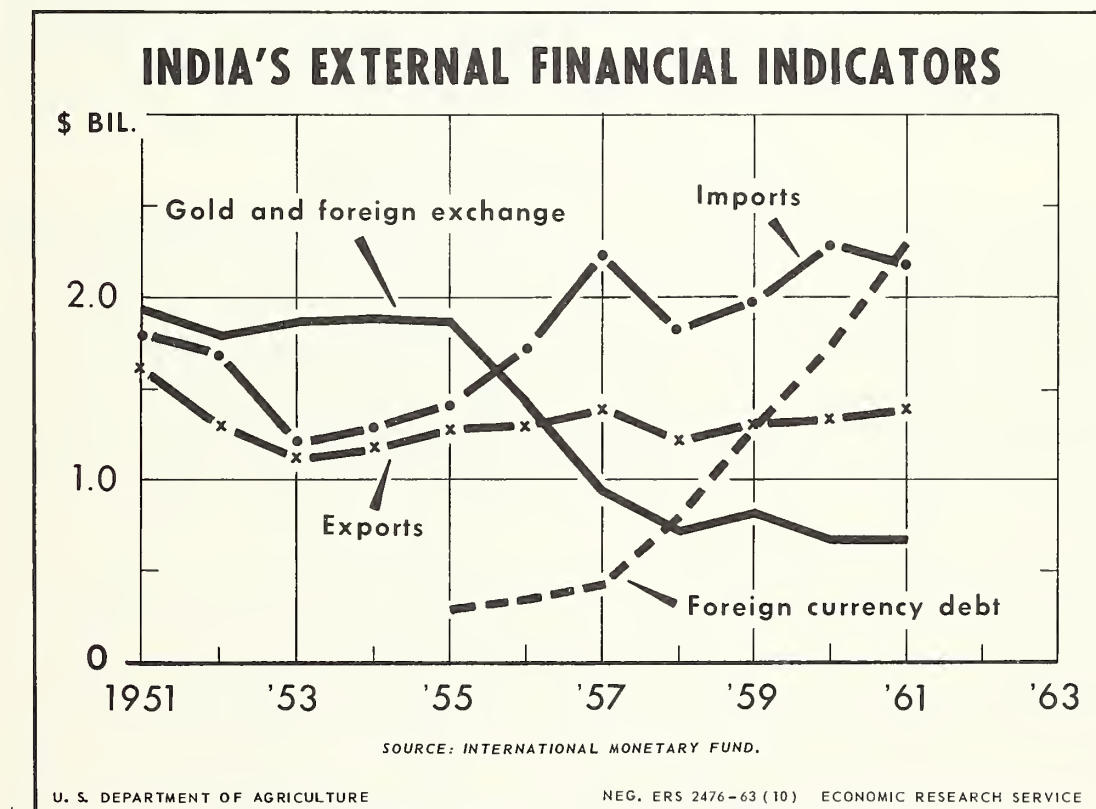


Figure 1

³ Data for this discussion are from International Financial Statistics of the International Monetary Fund. The IMF figures are not identical to either those of the Food and Agriculture Organization (5) or the Monthly Statistics on the Foreign Trade of India (14).

remained relatively constant throughout the 1951-61 period surveyed in this report. Exports, valued at \$1,276 million in 1955, reached a low of \$1,221 million in 1958 and a high of \$1,396 million in 1961. The increase in imports represents a significant increase in the volume of purchases. The import price index (1958 = 100), which was 96 in 1955, was only 98 in 1961; it varied from 93 to 107 over the 6 years.

This large trade deficit was financed by (1) a reduction in gold and foreign currency reserves in 1955-61 from \$1,866 million to \$655 million, (2) a rapid rise in foreign currency debt from \$296 million to \$2,289 million during the same period, and (3) local currency purchase arrangements, such as the Public Law 480 program. Figure 1 shows that India's rapid import expansion during 1956 and 1957 was financed by drawing down its foreign exchange reserves. Thereafter, increased borrowing became virtually the sole means of filling the gap between foreign exchange earnings and expenditures. The significant reduction in foreign exchange requirements resulting from the P. L. 480 Title I program is evident.

A difficult decision is rapidly approaching for India and its creditors. Foreign exchange reserves are already less than one-third the value of annual imports. They can hardly be reduced much further. Even if entirely used up, they would not finance the deficit for a year at the present rate. The foreign exchange debt has grown an average of \$332 million per year since 1955. This obviously cannot continue for long without repayment under normal terms becoming impossible.

India intends to proceed with more rapid development during its Third 5-Year Plan. As indicated in the preceding section, the needed increase in the annual export rate is very sizable, especially in view of the static level of exports during the past 10 years. If a substantial portion of these planned export gains do not materialize, increased foreign assistance will be needed. Is a balance of trade in view, or will the desire and need for development continue to create even larger deficits?

AGRICULTURAL TRADE POLICY

India's agricultural trade objectives are similar to those of many developing countries--minimize imports of consumer goods and promote the expansion of exports.

India permits the importation of selected agricultural commodities. Wheat and rice are handled as government purchases by the Ministry of Agriculture. There is no commercial importation of these items. For other commodities, including cotton, licensing and bilateral trade agreements are used to control both the level and direction of trade. There is a very strong effort to satisfy as many needs as possible in countries, mainly in the Soviet Bloc, where rupee payment agreements exist. The United States, however, is by far the most significant source of major agricultural imports.

Since the trade-deficit crisis of 1957, many ideas have been set forth as to why India's exports have remained stagnant. Many recommendations have been made. Ideas tried so far, however, have had very little effect upon the overall level of exports, which has remained essentially the same. Three causes are stated as most significant (12): First, India's traditional export industries have obsolete, inefficient equipment and a labor force unusually well organized and highly paid for an underdeveloped country. Second, rising incomes and population have increased demand faster than production, thus reducing the surplus for export. Third, India's traditional exports are primary goods of relatively little market-growth potential; therefore, export growth must come from increasing industrial exports. Recent changes in export policy are designed to cope with these problems.

Exports are being made more competitive by lowering or eliminating the export tax on many items. Most significant has been the reduction in the export tax on tea. For some commodities, such as coffee and sugar, exports are already being subsidized in order to compete in the world market. Also, a system of rebates of import duties on

raw materials or intermediate goods used to manufacture export goods has been initiated. All these measures increase the attractiveness of exports to Indian businessmen, but India's exports have not been significantly affected.

The planned solution to the problem of inadequate supplies of agricultural goods is evidenced in the ambitious agricultural production goals in the Third 5-Year Plan. In addition there have been some adjustments in excise taxes to discourage domestic consumption of exportable commodities.

An extensive effort is being made to promote India's exports. This effort is being made through several trade missions and, most significantly, through bilateral trade agreements with other less-developed countries. The primary purpose of the trade agreements is to promote exports from India's growing capital goods industry.

To deal more effectively with the state trading countries of the Communist Bloc, India has established a State Trading Corporation. In practice this corporation has handled more than Bloc trade. It has acted as the medium for trade agreements with many non-Bloc countries. It has handled the subsidization of exports and the allocation of scarce imports. However, it has handled only minor quantities of agricultural commodities.

AGRICULTURAL EXPORTS

Agricultural exports are strategically important to India. Ranging from \$400 million to \$600 million per year over the past decade, they have accounted for as much as half of India's sorely needed foreign exchange. Inclusion of the agricultural content of other major exports, jute and cotton manufactures, would raise this share significantly. Per Indian farm, agricultural exports average about \$8 - \$10 per year and comprise a significant share of total farm income. Although data on cash farm income are not available, a large share of marketed output goes to foreign markets.

India's farm exports have been essentially static over the past decade. An index of agricultural export values, using 1951-53 as a base period, shows some progress, but this is due more to unusually bad weather in the base period than any real growth (fig. 2). Farm exports from 1955 to 1961 were remarkably steady--never going below \$518 million or above \$599 million. While agricultural exports have changed little, production has trended upward, even registering modest gains on population growth.

During 7 of the 11 years surveyed (1951-61) agricultural exports exceeded agricultural imports. In the other 4 years, however, there was a large excess of imports over exports. As a result, average annual agricultural imports (\$578 million) exceeded exports (\$537 million) for the entire 11-year period.

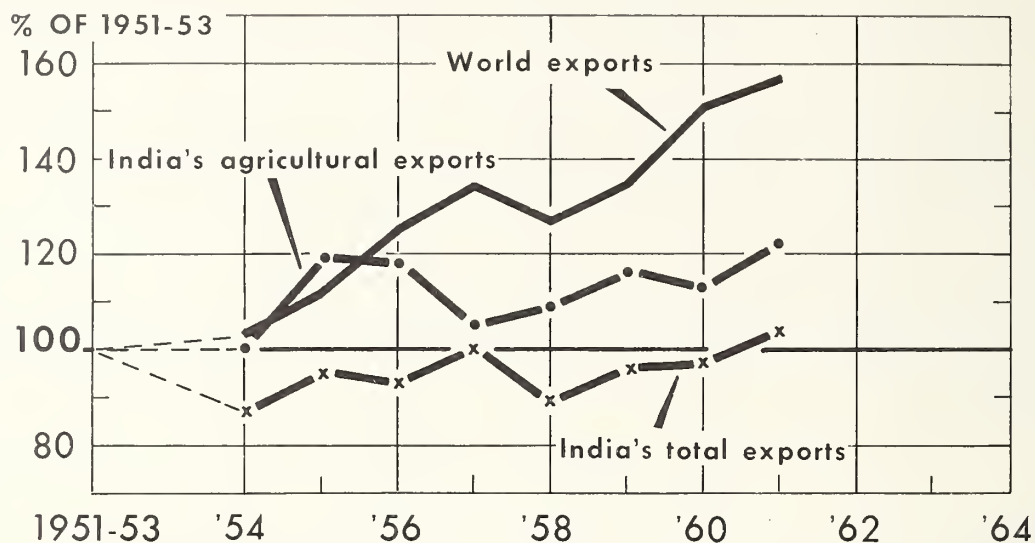
India's agricultural exports from 1951 to 1961 were about one-seventh the value of U.S. agricultural exports. However, India is the leading exporter of farm products in Asia, excluding Mainland China.

The agricultural share of total exports has been relatively stable, though gradually edging upward since 1951 (table 2). Developing countries ordinarily experience a gradual long-term decline in the agricultural share of total exports as the industrial sector accounts for a steadily growing portion.

Commodity Export Pattern

India, like many less-developed countries, is rather dependent on one agricultural export commodity for much of its foreign exchange. India's principal commodity is tea. Two factors, however, make India much less dependent on its principal agricultural export than many other less-developed countries. First, India depends on

INDIAN AND WORLD EXPORTS (Current Values)



U. S. DEPARTMENT OF AGRICULTURE

NEG. ERS 2477-63 (10) ECONOMIC RESEARCH SERVICE

Figure 2.

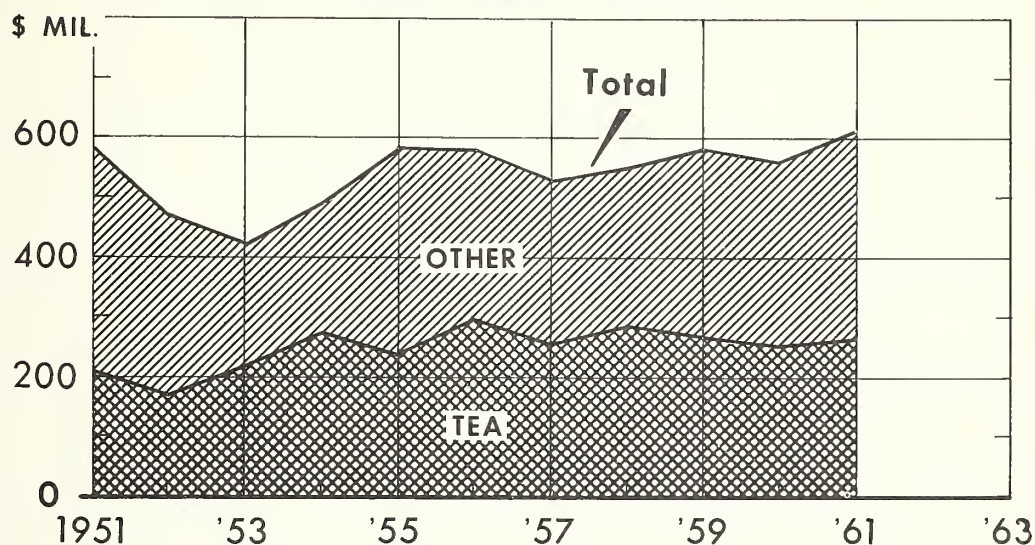
Table 2.--India: Agricultural share of total exports, 1951-61

Year	Agricultural exports	Nonagricultural exports	Total exports ¹	Agricultural share of total
	Million dollars	Million dollars	Million dollars	Percent
1951.....	584.1	1,054.8	1,638.9	35.6
1952.....	467.6	812.0	1,279.6	36.5
1953.....	422.2	694.1	1,116.3	37.8
1954.....	488.8	681.6	1,170.4	41.8
1955.....	582.9	693.6	1,276.5	45.7
1956.....	581.1	670.0	1,251.1	46.4
1957.....	518.3	821.0	1,339.3	38.7
1958.....	536.3	661.9	1,198.2	44.8
1959.....	570.7	718.3	1,289.0	44.3
1960.....	555.9	751.6	1,307.5	42.5
1961.....	599.3	804.7	1,404.0	42.7

¹ National exports only. Unrevised totals have been used.

Source: (14)

INDIAN AGRICULTURAL EXPORTS AND TEA EXPORTS



U. S. DEPARTMENT OF AGRICULTURE

NEG. ERS 2478-63 (10) ECONOMIC RESEARCH SERVICE

Figure 3

agricultural exports for only one-third to one-half of foreign exchange earnings. Second, tea exports normally comprise only about half of agricultural exports (Fig. 3). Tea, though important, occupies a less strategic place in the Indian economy than, for instance, rice in the Burmese economy or sugar in the Cuban economy.

There are 5 export commodities, each earning about \$20 million to \$30 million per year (table 3). These are cashews, cotton, vegetable oil, tobacco, and spices. Cashews and cotton are also imported in sizable quantities. Nearly all imported cashews are re-exported. Imported cotton, however, differs substantially from exported cotton.

Exports of wool and hides and skins have been quite stable throughout the period under survey. Each has averaged just under \$20 million per year.

Sugar, coffee, and feedstuffs have been added to the list of principal exports since 1951. Together they earned nearly \$90 million in 1961. Perhaps of greater interest than the amount actually earned is the sharp upward trend of each commodity. Exports of sugar and coffee, however, are subsidized.

An analysis of food-nonfood composition of agricultural exports shows an uncommonly low share of food exports (table 4). World agricultural trade is rather evenly distributed between food and nonfood groups. Food in this discussion is defined as items consumed and yielding calories. Tea, therefore, is not considered a foodstuff. On this basis the food share of India's principal agricultural exports does not go above 20 percent; in some years it drops as low as 8 percent.

Table 3.--India: Pattern of agricultural exports, 1951-61

Commodity	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961
----- Million dollars -----											
Tea.....	201.4	169.5	216.4	274.5	238.1	299.5	259.1	286.7	265.4	252.1	262.0
Cashew nuts.....	20.5	25.5	25.0	21.5	24.5	31.7	30.9	32.6	31.9	38.6	39.0
Cotton.....	33.6	31.7	23.1	17.9	50.9	36.8	27.1	31.9	23.5	17.1	27.4
Vegetable oils ¹	54.8	48.1	17.8	14.9	70.0	37.3	19.7	13.3	28.2	21.4	8.8
Tobacco.....	31.8	28.8	23.6	20.7	25.8	25.0	24.3	30.9	27.1	30.7	31.1
Spices ²	58.2	43.1	31.8	26.0	15.7	15.1	14.3	14.8	17.0	30.6	24.9
Wool.....	16.4	19.2	16.1	19.2	18.9	24.5	24.4	18.1	23.1	17.2	17.8
Cotton waste and linters.....	20.5	19.8	18.9	20.9	22.0	15.9	12.1	12.6	10.8	5.5	11.9
Feed stuffs.....	(³)	(³)	0.2	2.1	15.3	6.4	4.7	15.9	41.8	35.4	35.5
Hides and skins ⁴	20.9	12.3	12.4	14.3	14.1	15.9	13.9	14.7	22.0	21.2	16.2
Coffee.....	1.5	2.8	1.0	15.8	5.0	11.2	16.2	15.1	13.1	14.1	20.0
Sugar.....	(³)	8.3	1.6	0.1	1.9	2.0	26.6	7.1	4.8	3.2	32.9
Other.....	124.5	58.5	34.3	40.9	80.7	59.8	57.1	55.2	72.8	74.3	83.7
Total.....	584.1	467.6	422.2	488.8	582.9	581.1	530.4	548.9	581.5	561.4	611.2

¹ Includes peanut, sesame, mustard, castor, and linseed oil. ² Includes pepper, ginger, and cardamom. ³ Less than \$50,000. ⁴ Largely goat and kid skins.

Source: (14).

Table 4.--India: Share of food exports in total principal agricultural exports, 1951-61

Year	Principal food exports ¹	Principal nonfood exports ²	Total ³	Food share of total
	<u>Million dollars</u>	<u>Million dollars</u>	<u>Million dollars</u>	<u>Percent</u>
1951.....	75.3	384.3	459.6	16.4
1952.....	81.9	327.2	409.1	20.0
1953.....	44.4	343.5	387.9	11.4
1954.....	36.5	411.4	447.9	8.1
1955.....	96.4	405.8	502.2	19.2
1956.....	71.0	450.3	521.3	13.6
1957.....	77.2	396.1	473.3	16.3
1958.....	53.0	440.7	493.7	10.7
1959.....	51.4	457.3	508.7	10.1
1960.....	63.2	423.9	487.1	13.0
1961.....	80.7	446.8	527.5	15.3

¹ Cashews, sugar, and vegetable oils.

² Tea, cotton (including waste and lintens), tobacco, spices, wool, feedstuffs, hides and skins, and coffee.

³ Twelve principal agricultural exports, representing 80-90 percent of total agricultural exports most years.

Source: Tables 2 and 3

Export Markets

Complete data on the destination of all Indian agricultural exports are not available. However, available data for markets of leading commodities permit construction of a reasonably complete picture.

The close historical association between India and Great Britain is reflected in strong trade ties between the countries. Two-thirds of Indian tea exports during 1951-61 went to Great Britain (fig. 4). In addition, this traditional market was India's principal outlet for tobacco, wool, and vegetable oils.

The United States purchased about three-fourths of all cashew exports during the 1950's. It was also the leading market for Indian spices. Japan, with its large textile industry, was the principal outlet for India's cotton.

The United Kingdom usually purchases at least half of India's agricultural exports. The United States, taking about \$85 million worth of India's farm products annually, is the second-ranking outlet.

Major Export Commodities

Tea.--India is the world's leading tea producer and exporter (5). Annual output, averaging about 350,000 metric tons in recent years, represents about 35 percent of the world total. India produces as much tea as Ceylon and Communist China, the second and third leading tea producers, combined.

Nearly all the tea produced in India is marketed and about two-thirds moves into export channels. It is a leading source of cash income in agriculture and a leading

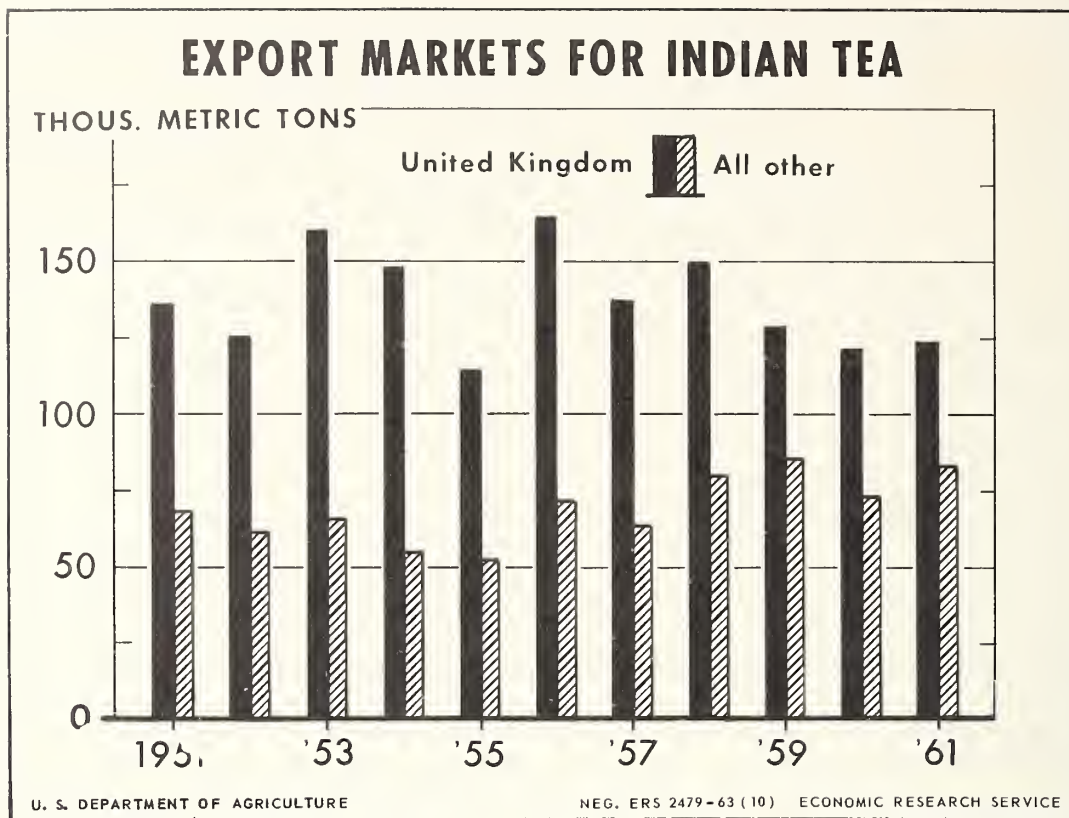


Figure 4

earner of foreign exchange. Tea production requires much labor, moist warm weather, and hilly well-drained land. India possesses these requisites in abundance. Tea is harvested several times per year by hand-picking the small leaves. This provides employment for many agricultural laborers otherwise underemployed.

Although India produces much more tea than Ceylon, it retains about a third of its output for domestic consumption. Ceylon, with a population of only 10 million, retains only a very small percentage of its output. Thus, India's tea exports are only slightly larger than those of Ceylon. Together, the two countries export 75 to 80 percent of the tea entering the world market. Most of China's sizable output is consumed domestically, leaving relatively little for export. In very recent years production in other areas has been expanding rapidly. Continued expansion could hurt India's tea exports. The recent FAO report on tea (5) indicates the possibility of a world oversupply in the next few years.

The United Kingdom, importing about half the tea entering international trade channels, takes about two-thirds of India's exports (fig. 4). The remaining one-third is distributed among several countries. Chief among these are the United States, Canada, Ireland, and recently, the United Arab Republic and the Soviet Union (table 5).

World market prices for tea have been characterized by a degree of stability unusual for a primary commodity export. India's average export price has been much more favorable since the middle 1950's than during the earlier years of the decade. From 1956 to 1961, the average annual export price per kilogram ranged between \$1.24 and \$1.30, a maximum variation of about 5 percent.

India's exports during the 1950's reached a low of 166,000 metric tons in 1955 and a high of 237,000 the following year. Quantities and prices of exports tended to rise during

Table 5.--India: Tea exports, value and quantity, by country of destination, 1951-61

Country	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961
	Value (1,000 dollars) -----										
United Kingdom.....	127,515	116,190	153,458	195,388	155,320	207,660	172,955	187,899	158,986	158,343	158,280
United States.....	14,964	13,033	13,516	20,532	16,229	16,465	13,451	13,814	12,876	11,069	13,173
Ireland.....	14,745	5,439	9,376	13,825	12,201	9,279	11,561	8,891	9,888	8,373	7,637
Canada.....	9,432	8,245	10,255	13,158	11,298	13,691	9,841	11,181	9,265	9,643	8,199
Egypt.....	1,567	1,757	7,394	4,593	8,837	13,321	8,701	11,300	12,475	16,840	16,858
USSR.....	1,053	1,300	(¹)	(¹)	(¹)	2 8,736	11,308	17,430	19,133	15,849	18,090
Iran.....	9,805	1,270	735	4,377	11,592	6,056	10,172	9,302	5,603	5,752	5,944
Sudan.....	479	1,743	1,598	3,218	1,633	2,476	1,859	5,815	10,164	4,323	7,056
Other.....	21,190	20,536	20,042	19,420	20,966	21,767	19,295	21,111	27,037	23,998	26,742
Total.....	200,750	169,513	216,374	274,511	238,076	299,451	259,143	286,743	265,427	254,190	261,979
	Quantity (metric tons) -----										
United Kingdom.....	136,352	125,238	160,992	148,094	113,866	165,041	136,858	150,103	128,173	122,173	124,030
United States.....	14,324	13,348	13,236	14,737	10,936	12,863	10,587	11,564	10,733	8,597	10,759
Ireland.....	13,820	6,146	9,495	10,019	8,152	7,588	8,825	7,191	7,463	6,241	5,925
Canada.....	9,150	9,328	10,173	8,685	7,387	10,262	7,658	8,638	7,266	6,998	6,488
Egypt.....	1,648	2,341	8,231	3,157	5,804	10,512	7,630	11,576	11,700	14,365	15,612
USSR.....	1,028	1,296	(¹)	(¹)	(¹)	5,907	7,234	11,466	12,405	10,247	11,894
Iran.....	6,462	901	522	2,208	4,858	2,972	4,511	5,449	3,447	3,552	3,823
Sudan.....	674	3,663	2,473	2,820	1,481	3,039	1,979	6,333	10,720	3,933	6,751
Other.....	21,185	25,344	21,930	13,441	13,646	19,300	15,839	17,387	22,406	19,087	21,909
Total.....	204,643	187,605	227,052	203,161	166,130	237,484	201,121	229,707	214,313	195,193	207,191

¹ Negligible, not available, or none. If negligible or not available, included in other.² From Our Export Trade Countrywise Analysis, Federation of Indian Chambers of Commerce, 1959.

Source: (14)

the decade. Therefore, the total value of tea exports averaged more in recent years than in the early 1950's.

Cotton.--More land is planted to cotton in India than in any other country. Yields are very low, however, and India ranks fourth in production after the United States, Communist China, and USSR. Despite vast cotton acreage, India is a net importer. Imports from 1951 to 1961 averaged \$134 million per year, while exports averaged \$29.2 million. Exports are largely short-staple cotton; imports are longer staple, more desirable for textile manufacture.

Japan has tended to increasingly dominate the market for Indian cotton (table 6). Throughout most of the early and middle 1950's Japan took about half the cotton exports. During the last 3 years, however, Japan has taken four-fifths or more.

India's cotton exports show considerable year-to-year variation and no clearly defined long-term trend. Exports hit a low of 27,000 metric tons in 1954 and a high of 94,000 the following year.

Table 6. India: Cotton export pattern by country of destination, 1951-61

Year	Japan	United States	United Kingdom	France	Other	Total
	-----Metric tons-----					
1951.....	8,678	12,221	3,755	314	3,068	28,036
1952.....	30,765	3,649	2,254	3,771	12,343	52,782
1953.....	20,361	7,301	3,357	3,408	11,263	45,690
1954.....	15,219	1,707	3,263	1,580	5,289	27,058
1955.....	41,327	2,610	12,231	3,125	35,123	94,416
1956.....	44,127	548	7,889	1,689	17,105	71,358
1957.....	23,759	952	3,612	1,257	10,721	40,301
1958.....	48,293	1,903	3,443	3,388	15,816	72,843
1959.....	47,543	1,796	978	2,317	5,993	58,627
1960.....	29,407	929	210	1,163	2,096	33,805
1961.....	40,673	3,255	1,247	2,261	6,308	53,744

Source: (14)

Cashew nuts.--India is both a producer and an importer of cashew nuts. About two-thirds of annual exports, averaging about 40,000 metric tons in recent years, consist of re-exports of nuts imported from Africa. The remaining one-third are produced domestically. Cashew nuts produced in India are usually marketed and eventually exported; less than 10 percent of output is retained for consumption.

Some 90 percent or more of African cashew nut production is exported to India. Raw nuts are shelled and packed in India for re-export. Shelling must be done by hand to keep nuts intact. In Mozambique and Tanganyika, the principal African suppliers, a scarcity of labor with the temperament for this tedious work has prevented any large expansion of their shelling industry. India's Third Plan goal is to double domestic nut output.

India's cashew nut exports have trended upward, nearly doubling during the past decade (table 7). Except for 2 years, export tonnage has increased each year. Export prices, however, have fluctuated considerably, especially during the early and middle 1950's. Prices received for Indian exports ranged from a low of 68 cents per kilogram in 1954 to 98 cents in 1956. Unlike most of India's agricultural exports, cashew exports are increasing consistently.

Table 7.--India: Cashew nut exports, value and quantity, by country of destination, 1951-61

Country	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961
	----- Value (1,000 dollars) -----										
United States.....	15,707	18,157	18,127	17,799	19,878	22,931	23,011	22,979	22,266	24,928	24,166
United Kingdom.....	3,543	6,131	5,086	2,124	2,113	3,547	2,424	1,980	1,643	2,339	3,016
USSR.....	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	1,957	4,212	3,833	5,644	4,134
Other.....	2,130	1,189	1,744	1,546	2,473	5,253	3,546	3,405	4,148	5,687	7,729
Total.....	21,380	25,477	24,957	21,469	24,464	31,731	30,938	32,576	31,890	38,598	39,045
	----- Quantity (metric tons) -----										
United States.....	17,865	17,805	19,940	24,847 ²	25,497	23,043	25,752	27,775	26,289	29,630	25,305
United Kingdom.....	4,643	7,502	6,615	4,201	² 2,833	3,814	2,787	2,717	2,199	2,580	3,347
USSR.....	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	2,103	5,095	4,456	5,283	3,961
Other.....	1,376	1,208	1,944	2,405	² 3,124	5,635	3,941	4,613	5,256	5,938	8,339
Total.....	23,884	26,515	28,499	31,453 ²	31,454	32,492	34,583	40,200	38,200	43,431	40,952

¹ Negligible, not available, or none. If negligible or not available, included in other.² For. Agr. Ser. information indicates the following exports: U.S., 27,288 metric tons; U.K., 2,704; other, 2,999; total, 32,991.

Source: (14)

The United States is India's principal cashew market. Exports to the United States have trended steadily upward, generally keeping pace with total export gains. The United Kingdom took most of India's remaining cashews in the early 1950's, but in recent years the Soviet Union has been the second ranking market. Very recent data show a gradual diversification in export markets. The recent addition of the Soviet Union as a major outlet is an early indication of this trend.

Vegetable oils.--India produces and exports a wide variety of vegetable oils. Vegetable oil export data in table 9 include peanut, castor, sesame, mustard, and linseed oil. Peanut oil and castor oil dominate vegetable oil exports.

India produces nearly one-third of the world supply of peanuts. Annual output is 4 million to 5 million tons, and is twice that of the second-ranking producer, Communist China. It is 4 to 5 times more than production in the United States, the fifth-ranking producer. Most of India's peanut oil is consumed domestically; exports are small relative to consumption and are thus quite marginal. This is reflected in wide year-to-year variations in the volume of vegetable oil exports. During the 11 years studied oil exports varied from a high of 294,000 metric tons in 1955 to a low of 26,000 in 1961. The value of vegetable oil exports likewise fluctuated widely, ranging from a high of \$70 million in 1955 to a low of \$9 million in 1961.

India is second to Brazil in producing castor beans; together the two countries normally account for half or more of world output. They account for some 90 percent of world trade in castor oil. Exports have been rather evenly divided between the two countries during the past decade.

The United Kingdom is India's principal market for vegetable oils. The United States ranks second. During the last few years, the Soviet Union has emerged as a principal outlet. Australia and Burma are also becoming sizable markets.

Tobacco.--India exports and imports tobacco. Imports average only \$2.3 million per year, while exports are usually between \$20 million and \$30 million per year. Production has averaged 250,000-300,000 metric tons per year. Of this output, some 30,000-50,000 metric tons per year are exported.

Table 8.-- India: Tobacco export pattern by country of destination, 1951-61

Year	United Kingdom	USSR	Communist China	Aden	Netherlands	Belgium	Other	Total
-----Metric tons-----								
1951.....	17,986	6,779	(¹)	2,057	1,520	903	24,632	53,877
1952.....	16,186	2,125	(¹)	1,362	1,069	905	14,851	36,498
1953.....	13,614	(¹)	(¹)	2,864	1,239	1,196	12,622	31,535
1954.....	15,654	(¹)	(¹)	2,955	1,154	924	12,945	33,632
1955.....	15,679	(¹)	13,424	2,475	1,302	1,186	10,770	44,836
1956.....	14,840	(¹)	12,888	2,751	1,585	1,257	8,946	42,267
1957.....	15,896	3,469	(¹)	3,599	2,375	1,859	9,194	36,392
1958.....	19,936	3,202	10,336	3,445	1,472	1,649	8,048	48,088
1959.....	16,305	4,443	(¹)	4,560	1,965	1,762	8,638	37,673
1960.....	17,513	4,126	(¹)	3,783	1,489	2,113	11,685	40,709
1961.....	25,140	5,090	(¹)	3,978	1,879	2,321	9,588	47,996

¹ Negligible, not available, or none. If negligible or not available, included in other.

Source: (14)

Table 9.---Vegetable oil exports,¹ value and quantity, by country of destination, 1951-61

Country	1951 ²	1952 ²	1953 ²	1954 ²	1955 ²	1956 ²	1957	1958	1959	1960	1961
----- Value (1,000 dollars) -----											
United Kingdom.....	8,536	8,517	4,234	3,347	17,663	17,367	6,307	5,888	7,549	8,475	3,132
United States.....	2,210	8,622	5,963	2,353	5,537	6,269	5,837	73	3,893	7,058	---
Australia.....	6,520	1,705	1,569	443	2,637	1,350	2,177	2,975	2,292	1,081	225
Netherlands.....	4,776	8,199	1,277	2,605	16,800	1,704	373	2	2,554	31	1
Burma.....	1,922	3,264	48	2,883	9,495	610	62	53	4,285	324	137
USSR.....	(³)	(³)	(³)	(³)	(³)	(³)	1,757	2,101	1,940	2,022	3,579
Other.....	30,836	17,748	4,696	3,255	17,817	9,964	3,181	2,236	5,684	2,370	1,717
Total.....	54,800	48,055	17,787	14,886	69,949	37,264	19,694	13,328	28,197	21,361	8,791
----- Quantity (metric tons) -----											
United Kingdom.....	17,671	20,330	11,755	13,062	75,669	51,640	21,226	20,458	26,407	27,583	9,737
United States.....	4,443	20,780	17,534	11,403	28,063	21,877	17,040	304	13,950	22,712	---
Australia.....	12,685	3,999	5,021	1,551	11,061	4,235	6,679	10,005	7,900	3,180	624
Netherlands.....	10,979	22,998	3,855	9,522	70,595	6,721	976	6	9,549	119	3
Burma.....	3,986	9,443	116	11,142	34,828	2,245	140	118	14,342	1,008	244
USSR.....	(³)	(³)	(³)	(³)	(³)	(³)	4,324	6,498	6,231	6,015	10,396
Other.....	69,642	50,538	13,535	6,831	74,151	90,478	8,367	6,797	18,943	7,366	4,844
Total.....	119,406	128,088	51,816	53,511	294,367	177,196	58,752	44,186	97,322	67,983	25,848

¹ Includes: peanut, castor, sesame, mustard and linseed oils. ² Mustard and sesame oil not shown by country.³ 1951-56 not available, negligible, or none; if negligible or not available, included in other.

Source (14).

Tobacco is exported to several countries, but the United Kingdom has consistently been the principal taker (table 8). Its share has varied somewhat, but it has usually taken from one-third to one-half the total. During the 3 years for which data are available on shipments to Communist China, it ranked second. Other principal markets for Indian tobacco are the Soviet Union, Aden, Netherlands, and Belgium. Exports of tobacco show no pronounced trend. Exports in recent years, however, have been slightly higher than during the early 1950's.

Spices.--Spices have been an important agricultural export of the Indian subcontinent for many centuries. Although they are now probably much less dominant than in earlier times, they still rank high on the list of export commodities. Data presented on spices include pepper, ginger, and cardamon; pepper accounts for the greater part of spice exports.

India, currently the world's leading pepper producer, maintains a slight edge over Indonesia. Together these countries account for almost three-fourths of world output. Indonesia, with a much smaller population, is the leading exporter. In recent years, India's pepper exports have averaged more than half of production.

Spice exports have varied from 15,000 to 27,000 metric tons per year since 1951. Exports are generally trending upward; the high was reached in 1961.

The United States, importing 5,000 to 10,000 tons annually, has consistently been the leading outlet for Indian spices (table 11). The United Kingdom ranked second in the early 1950's, but beginning in 1954, the Soviet Union moved into second place. Spice exports are distributed to a large and growing number of countries. Italy, Canada, and West Germany are now taking sizable quantities.

Although the quantity of spice exports has remained rather steady, the value has fluctuated widely, going from a high of \$58 million in 1951 to a low of \$14 million in 1957.

Wool.--One of India's most consistent foreign exchange earners, wool has earned an average of nearly \$20 million per year. Annual earnings ranged from \$16 million in 1953 to \$24 million in 1956. The quantity exported, from 10,000 to 19,000 tons per year, ap-

Table 10.--India: Wool export pattern by country of destination, 1951-61

Year	United Kingdom	United States	USSR	Other	Total
	-----Quantity (metric tons)-----				
1951.....	6,616	2,504	(¹)	663	9,783
1952.....	7,842	6,129	(¹)	4,960	18,931
1953.....	8,093	2,181	(¹)	2,903	13,177
1954.....	8,795	4,340	(¹)	2,377	15,512
1955.....	7,875	5,050	(¹)	1,793	14,718
1956.....	7,052	5,000	(¹)	5,703	17,755
1957.....	7,439	4,044	2,600	3,093	17,176
1958.....	5,863	3,280	4,066	2,188	15,397
1959.....	6,184	5,833	2,865	4,219	19,101
1960.....	5,103	2,575	3,533	2,652	13,863
1961.....	4,559	2,142	5,918	1,937	14,556

¹ Negligible, not available, or none. If negligible or not available, included in other.

Source (14)

Table 11.--India: Spice exports, value and quantity, by country of destination, 1951-61¹

Country	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961
-----Value (1,000 dollars)-----											
United States.....	31,943	23,490	18,514	10,900	6,094	3,823	2,582	1,870	3,419	8,066	5,023
USSR.....	4,307	1,257	384	3,113	1,702	1,354	2,208	2,432	2,326	4,716	3,409
United Kingdom.....	6,251	4,091	2,963	1,530	395	289	358	318	200	377	296
Italy.....	1,834	1,944	1,410	955	483	740	397	592	781	1,726	1,350
Canada.....	1,727	1,577	1,401	870	568	354	317	359	474	828	777
West Germany.....	1,505	1,225	92	44	19	215	352	736	703	468	766
Other.....	10,629	9,560	7,065	8,576	6,485	8,288	8,092	8,543	9,076	14,427	13,233
Total.....	58,196	43,144	31,829	25,988	15,746	15,063	14,306	14,850	16,979	30,608	24,854
-----Quantity (metric tons)-----											
United States.....	10,469	8,205	7,533	9,356	7,662	6,280	5,743	4,279	5,438	7,542	6,338
USSR.....	1,290	432	152	1,651	1,981	2,032	5,050	4,911	3,215	3,564	3,452
United Kingdom.....	1,909	1,525	1,287	1,385	327	324	935	762	196	355	586
Italy.....	551	714	621	735	567	1,188	832	1,269	1,354	1,410	1,459
Canada.....	567	577	604	798	720	646	769	876	890	762	943
West Germany.....	471	468	40	36	24	404	486	312	683	339	759
Other.....	4,498	6,331	5,216	5,257	5,055	8,965	12,539	9,529	9,066	10,816	13,368
Total.....	19,755	18,252	15,453	19,218	16,336	19,839	26,354	21,938	20,842	24,788	26,905

¹ Pepper, ginger, and cardamon only.

Source: (14)

pears somewhat more variable than the value of exports (Table 10). During the early 1950's, the United Kingdom took about half of India's wool exports, but in recent years it has generally taken one-third or less. As the United Kingdom's share has gone down, the Soviet Union's share has increased. In 1961, the Soviet Union, taking 5,900 tons, became the principal outlet for the first time during the 1951-61 period surveyed. The United States, taking on the average about 4,000 tons per year, ranked second during the period. The United Kingdom, the United States, and USSR took 80 percent or more of India's wool exports in most years.

Other exports.-- Three of the four commodities in this section are relatively new as significant items on the export list (table 3). These are feedstuffs, coffee, and sugar. In 1951, their combined export value was \$1.5 million; by 1961, it had risen to \$87.9 million.

Feedstuffs, one of the most promising new commodities, consist largely of peanut cake, the peanut residue after oil is extracted. Three-fourths of the \$35 million in feedstuffs exported in 1961 went to the United Kingdom. Other principal buyers were Poland, East Germany, and West Germany.

Exports of coffee, expanding irregularly throughout the decade, reached a peak of \$20 million in 1961. Even so, India's production amounted to only 1 percent of world production, and its share of world exports was even smaller. Underlying the upsurge in coffee exports is the government's export subsidy. Unlike some of India's agricultural exports, no country dominates its coffee export market. West Germany takes a slightly larger tonnage from India than other coffee-purchasing countries: Italy, Netherlands, the United Kingdom, Soviet Union, Yugoslavia, and the United States.

Sugar exports were of more than minor significance in only 2 years, 1957 and 1961. Greatly expanded exports in 1961 were closely associated with changes in the world sugar-trade pattern arising from the Cuban situation. The United States was the principal market for India's 1961 sugar exports, taking nearly half of the 389,000 tons exported. India is continuing to produce a sizable surplus, and the government is subsidizing sugar exports.

Hides and skins, largely goat and kid skins, were exported throughout the period. Annual exports averaged \$16 million per year and appear to be trending slowly upward.

AGRICULTURAL IMPORTS

It was necessary to use a non-Indian source of import volume statistics and make import value estimates for some data in this report. Because of the statistical treatment of imports on government account, the Monthly Statistics of the Foreign Trade of India do not accurately represent the very large imports of wheat and rice. A search of alternative sources yielded several similar sets of import volume statistics. The only alternative value statistics for the 11-year survey period (1951-61) were for total cereals.

Alternative statistics describing the volume of wheat and rice imports of India were found in Indian sources: Agricultural Situation of India, tables of monthly unloadings (15), and the Bulletin on Food Statistics, table on Imports on Government Account (16). Other sources were Food and Agriculture Organization (6), and the U.S. Department of Agriculture.

Table-12 illustrates the comparability of statistics from the Bulletin on Food Statistics and the U.S. Department of Agriculture (tables 16 and 17) and the lack of correlation with the Monthly Statistics of the Foreign Trade of India.

Table 12.--India: Adjustments in import data, 1951-61

Item	Source	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961
-----Value (thousand dollars)-----												
Wheat.....	MSFTI Table 16 ²	229,368 359,626	264,412 218,980	110,929 124,266	14,531 23,412	33,006 35,417	6,067 121,303	72,965 254,055	215,556 249,008	230,482 247,142	168,229 359,494	197,212 231,083
Rice.....	MSFTI ¹ Table 17 ²	85,817 97,027	102,407 114,547	30,981 35,416	85,748 87,832	39,598 34,619	1,487 43,786	35,490 91,824	92,459 39,917	19,268 27,576	37,168 82,507	30,045 48,291
Total wheat and rice...	MSFTI Table 16 & 17	315,185 456,626	366,819 333,527	141,910 159,622	100,279 111,244	72,604 70,036	7,554 165,089	108,455 345,879	308,015 288,925	249,750 274,518	205,397 442,001	227,257 279,374
Total cereals.....	Bul. on Food Stat. ³	455,259	439,047	180,495	101,913	69,531	178,314	341,019	253,071	296,961	404,964	272,076
Total agriculture.....	MSFTI Table 13	882,153 1,023,594	798,169 764,877	401,867 419,579	419,311 430,276	368,112 365,544	290,380 447,915	374,507 611,931	491,269 472,179	454,002 478,770	532,718 769,322	518,536 570,653
Total imports.....	MSFTI Table 13	1,762,649 1,904,090	1,658,655 1,625,363	1,185,801 1,203,513	1,290,219 1,301,184	1,413,413 1,410,845	1,708,706 1,866,241	2,154,225 2,391,649	1,814,777 1,795,687	1,863,399 1,888,167	2,230,218 2,466,822	2,169,102 2,221,219
-----Volume (thousand metric tons)-----												
Wheat.....	MSFTI USDA & Tab. 16	(⁴) 3,468	(⁴) 2,137	(⁴) 1,543	(⁴) 328	(⁴) 460	(⁴) 1,314	835 2,874	2,658 3,017	2,880 3,148	2,210 4,735	2,526 2,960
Rice.....	Bul. on Food Stat. USDA & Tab. 17	3,018 (⁴) 761	2,498 (⁴) 734	1,638 (⁴) 193	200 (⁴) 654	442 (⁴) 307	1,115 (⁴) 379	2,898 281 767	2,716 594 396	3,553 203 295	4,386 359 699	3,092 299 384
Other grains.....	Bul. on Food Stat. Bul. on Food Stat.	760 1,022	734 694	178 219	635 8	269 0	330 0	748 0	397 111	295 20	699 52	384 19

¹ MSFTI = Monthly Statistics of the Foreign Trade of India (14).² Tables 16 and 17 refer to tables in this publication.³ Bulletin on Food Statistics (16).⁴ Quantity not available until 1957.

Note: For further discussion of adjustments in wheat and rice imports, see Appendix.

The only alternative statistics on the value of Indian food grain or wheat and rice imports were in the Bulletin on Food Statistics, table on Imports on Government Account. Even this source presented a figure for only the total value of wheat and rice imports in 1951-53. After 1953 the only value figure shown is for total cereals. Because wheat and rice imports are such a large proportion of India's agricultural imports, it seemed necessary to estimate values to fill this large gap in the import picture.

Values used in this report were obtained by estimating unit values and applying them to USDA quantity information. The estimated unit values are based, insofar as possible, upon values calculated from the value and quantity information in the Monthly Statistics of the Foreign Trade of India. A complete description of methods used for estimating the unit values, along with a country-of-origin comparison of data from different sources, is in the appendix. Table 12 provides a comparison of the value estimates used with the data from the Bulletin on Food Statistics and the data from the Monthly Statistics of the Foreign Trade of India.

India's agricultural imports during 1951-61 were marked by three elements: their high level during poor crop years at the beginning of the period, their slow rise throughout the remainder of the period, and the preponderance of food items in agricultural imports (fig. 5).

The bountiful harvest of 1953 coincided with a reduction in export revenues following the end of Korean hostilities. The index of agricultural production rose from an average of 90 in 1951-52 to 105 in 1953 (1952-54 = 100). The food production index rose even more, from 89 to 106. The index of per capita food output went from 92 to 106. During the same period, export revenues dropped from \$1,639 million in 1951 to \$1,116 million in 1953, a decline of 32 percent. Agricultural imports proved to be the import

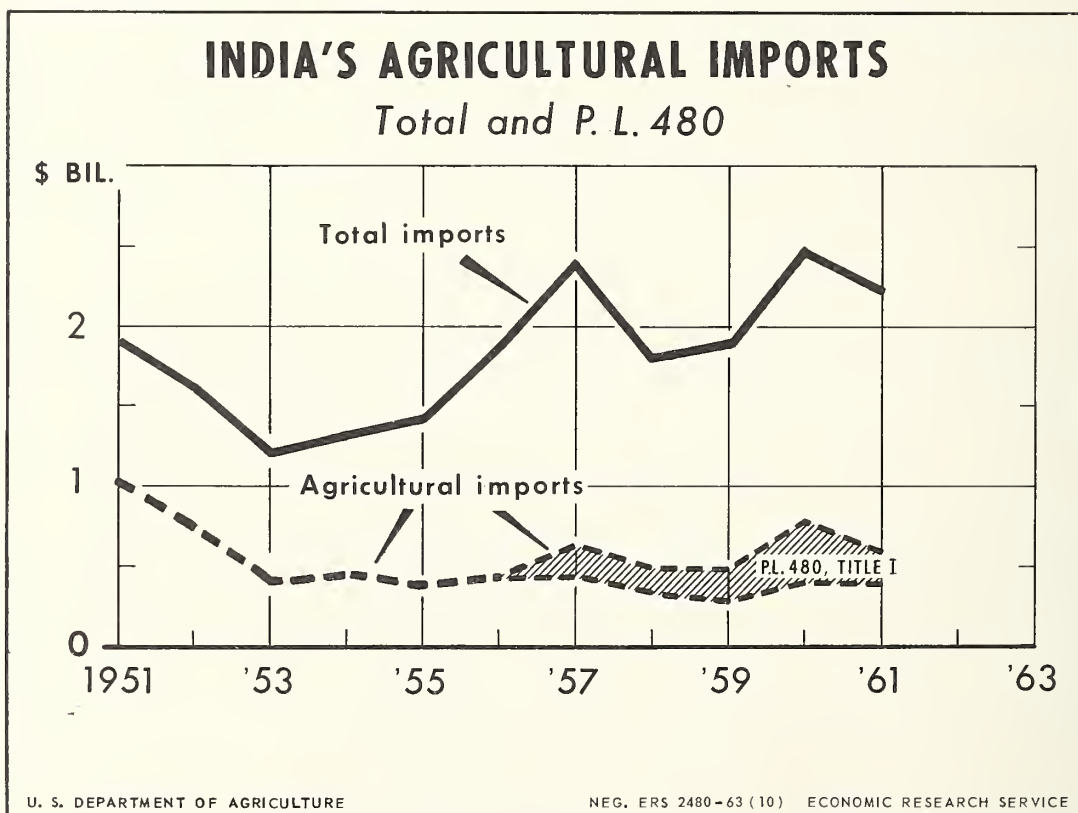


Figure 5

Table 13.--India: Agricultural share of total imports, 1951-61

Year	Agricultural imports ¹	Nonagricultural imports	Total imports	Agricultural share of total
	<u>Mil. dol.</u>	<u>Mil. dol.</u>	<u>Mil. dol.</u>	<u>Percent</u>
1951.....	1,023.6	880.5	1,904.1	53.8
1952.....	764.9	860.5	1,625.4	47.1
1953.....	419.7	783.9	1,203.5	34.9
1954.....	430.3	870.9	1,301.2	33.1
1955.....	365.5	1,045.3	1,410.8	25.9
1956.....	447.9	1,418.3	1,866.2	24.0
1957.....	611.9	1,779.7	2,391.6	25.6
1958.....	472.2	1,323.5	2,795.7	26.3
1959.....	478.8	1,409.4	1,888.2	25.4
1960.....	769.3	1,697.5	2,466.8	31.2
1961.....	570.7	1,650.5	2,221.2	25.7

¹ See tables 24 and 25 for adjustments of source data.

Source: (14) Adjusted - see table 12.

category most expendable. They declined 59 percent from 1951 to 1953, a drop in value of \$604 million and \$81 million more than the decline in exports (table 2). The agricultural share of imports dropped from 54 percent to 35 percent (table 13).

Following this abrupt decline, agricultural imports rose slowly, reaching an average of over \$600 million per year from 1959 to 1961. This increase was accounted for by rupee purchases from the United States under Title I, P. L. 480. If these imports for local currency are deducted from agricultural imports during the 11 years, the foreign exchange drain of agricultural imports would show a slight decline. Thus, large quantities of foreign exchange were freed for industrial goods imports needed for India's industrial development program.

The share of agricultural imports dropped from 35 percent in 1953 to 26 percent in 1955 and remained at that level for the remainder of the period (table 13). In terms of foreign currency, the agricultural share dropped to an average of about 18 percent in the last 3 years.

At their peak, food imports accounted for 81 percent of principal agricultural imports (table 14). Despite the high food content of imports resulting from the poor crop years of 1951 and 1952, the average share of food items in agricultural imports was lower (57 percent) the first 5 years than in the final 5 years (75 percent). In part, this rise in the share of food purchases resulted from the U.S. Food for Peace program, which enabled India to obtain large quantities of food grains for rupee payments. Food grain imports increased during the bumper harvests of 1959 and 1960. The decline in 1961 resulted mainly from shortages in storage and distribution facilities. Beginning in 1960, food grain imports became part of a plan to establish sufficient food grain stocks to stabilize food prices.

Commodity Import Pattern

Wheat, cotton, and rice are the major agricultural import commodities (fig. 6). Wheat accounted for approximately one-third the agricultural imports in 1951 and 1952; from 1957 through 1961 it accounted for almost half. India is the second largest importer of wheat. Cotton maintained its share of imports at approximately one-fourth of

Table 14.--India: Food import share of total principal agricultural imports, 1951-61¹

Year	Food imports	Nonfood imports	Total	Food share of total
	<u>Mil. dol.</u>	<u>Mil. dol.</u>	<u>Mil. dol.</u>	<u>Percent</u>
1951.....	463.6	252.1	715.7	64.8
1952.....	347.7	252.4	600.1	57.9
1953.....	177.2	106.6	283.8	62.4
1954.....	124.6	124.6	249.2	50.0
1955.....	85.3	118.9	204.2	41.8
1956.....	187.5	121.0	308.5	60.8
1957.....	371.9	111.2	483.1	77.0
1958.....	314.3	71.7	386.0	81.4
1959.....	298.9	86.6	385.5	77.5
1960.....	463.6	185.0	648.6	71.5
1961.....	309.4	161.4	470.8	65.7

¹ Based on 7 leading imports.

Source: table 15

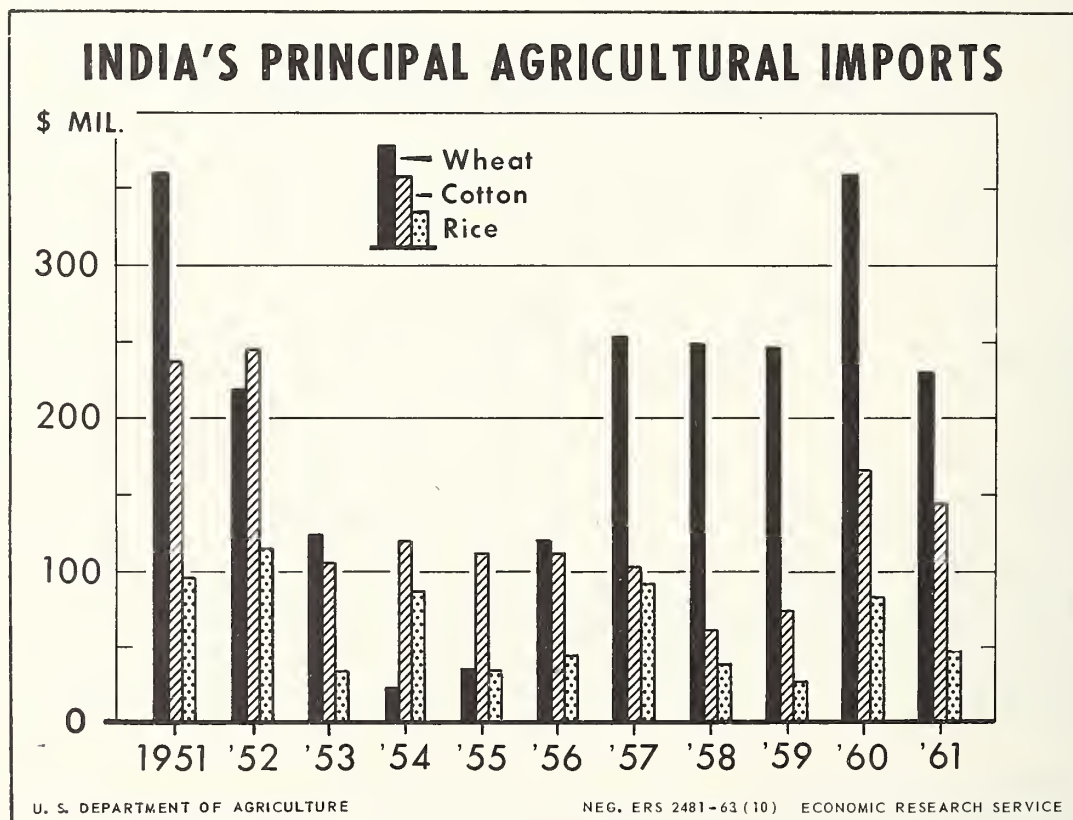


Figure 6

Table 15.--India: Pattern of agricultural imports, 1951-61

Commodity	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961
-----Million dollars-----											
Wheat ¹	359.6	219.0	124.3	23.4	35.4	121.3	254.1	249.0	247.1	359.5	231.1
Cotton.....	238.0	245.5	104.7	120.7	112.4	112.5	101.9	62.3	72.9	167.3	145.4
Rice ¹	97.0	114.5	35.4	87.8	34.6	43.8	91.8	39.9	27.4	82.5	48.3
Cashew nuts.....	4.1	9.1	12.4	6.5	6.6	12.0	15.5	15.7	12.7	17.0	19.6
Tobacco.....	4.5	4.0	1.6	1.9	3.1	1.8	2.7	2.9	2.9	0.5	1.9
Nonfat dry milk.....	2.9	5.1	5.2	6.9	8.7	10.4	10.5	9.7	11.7	4.6	10.4
Rubber.....	9.6	2.9	.3	2.0	3.4	6.7	6.6	6.5	10.8	17.2	14.1
Other.....	307.9	164.8	135.8	181.1	161.3	139.4	128.8	86.2	93.3	120.7	99.9
Total.....	1,023.6	764.9	419.7	430.3	365.5	447.9	611.9	472.2	478.8	769.3	570.7

¹ Adjusted as indicated in table 12.

Source: (14)

the total, except in 1957-59 when it fell significantly below one-fourth. Rice, smallest and most volatile of the leading imports, showed no definable trend in relation to the level of total agricultural imports. Of the remaining agricultural imports, cashew nuts and rubber showed upward trends, tobacco a decline in recent years, and nonfat dry milk relative stability after 1955 (table 15). The increase in cashew nut imports had a beneficial effect upon the balance of payments of India, because cashew imports were mainly for re-export.

Analyzing the import pattern, it is interesting to note that India produces each of the major agricultural import commodities in large quantities. For example, India in 1960 produced 51.3 million tons of rice and imported nearly 1 million, produced over 10 million tons of wheat and imported 4.7 million, produced 27,000 tons of rubber and imported 17,000. With rice yields only one-third U.S. levels and wheat yields only half, a shortage of physical and human capital--not land or climate--appears to prevent a reduction in agricultural imports.

Agricultural Suppliers

The United States is the most important supplier of agricultural products to India. This results from the U.S. position as leading exporter of wheat and cotton and the special payments provisions under P.L. 480. The U.S. share of India's agricultural imports varied from 33 percent in 1951 and 1952 to 10 percent in 1954 and 41 percent in 1957 (table 20). Since then, the percentage has risen slightly. P.L. 480 shipments became significant in 1957. Imports from the United States since 1953 have been increasing at a faster rate than total agricultural imports.

Other major suppliers are associated almost entirely with single products. Egypt, Kenya, and the Sudan supply cotton; Tanganyika and Mozambique supply cashew nuts; Burma supplies rice; and Indonesia and Malaya supply rubber.

Major Import Commodities

Wheat.--As indicated earlier, wheat is by far the most important agricultural import commodity, accounting for almost 50 percent of the total since 1957. Among Free World countries in Asia, India is the leading wheat producer and importer. India produced over 10 million tons in 1960, more than twice as much as its nearest competitor, Pakistan. As a wheat importer, India since 1957 has been second in the world to United Kingdom, and slightly ahead of Japan and West Germany. (5)

The fluctuations in source and total level of wheat imports are closely related to the level of domestic food grain production and foreign exchange availabilities (table 16). Until 1956, food grains were purchased on a hard currency basis. Therefore, food grain imports competed directly with other goods for the available exchange. Under these conditions, imports were closely related to the level of domestic food production. The large food grain crop of 1953 cut wheat imports almost 60 percent from the peak in 1951; imports were decreased an additional 80 percent in 1954 in favor of other goods.

Sources of supply during this period shifted among the major wheat exporting countries (fig. 7). Argentina dropped out of the market after 1953. Canada supplied an average of 433,000 tons annually until 1953 and then dropped from the market until 1958. Only Australia and the United States continued supplying wheat in the highly restricted market years of 1954 through 1956.

With the initiation of the U.S. Food for Peace program the level of wheat imports increased dramatically, spurred by local currency purchase arrangements and a poor harvest in 1957. The flow of wheat averaged about 3 million tons annually in 1957-59. On May 4, 1960, an agreement was reached with the United States to supply 4 million tons annually over a 4-year period. These unusually large imports are being used to establish buffer stocks to stabilize the domestic price of food grains. A "usual marketing"

Table 16.--Wheat imports, value and quantity, by country of origin, 1951-61¹

Country	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961
----- Value (1,000 dollars) -----											
United States.....	262,541	157,190	42,177	1,986	13,048	62,631	239,316	186,342	227,518	334,804	187,187
Canada.....	28,013	47,660	32,659	(²)	827	(²)	1,008	61,524	11,606	2,884	12,796
Australia.....	15,886	14,130	29,859	14,184	21,542	53,942	13,731	1,142	8,018	21,806	31,100
Argentina.....	42,357	0	19,571	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)
Other.....	10,829	0	0	7,242	0	4,730	0	0	0	0	0
Total.....	359,626	218,980	124,266	23,412	35,417	121,303	254,055	249,008	247,142	359,494	231,083
----- Quantity (1,000 metric tons) -----											
United States.....	2,279	1,429	491	26	140	632	2,695	2,237	2,778	4,388	2,406
Canada.....	343	534	423	(²)	9	(²)	11	765	259	38	158
Australia.....	195	174	380	200	311	627	168	15	111	309	396
Argentina.....	521	0	249	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)
Other.....	130	(²)	(²)	102	(²)	55	(²)	(²)	(²)	(²)	(²)
Total.....	3,468	2,137	1,543	328	460	1,314	2,874	3,017	3,148	4,735	2,960

¹ Value and quantity data are usually obtained from India's commercial statistics (14). For wheat this source is incomplete; therefore, quantity data are from U.S. Dept. Agr., and values were computed using estimated unit values. See table 24.

² Negligible or zero.

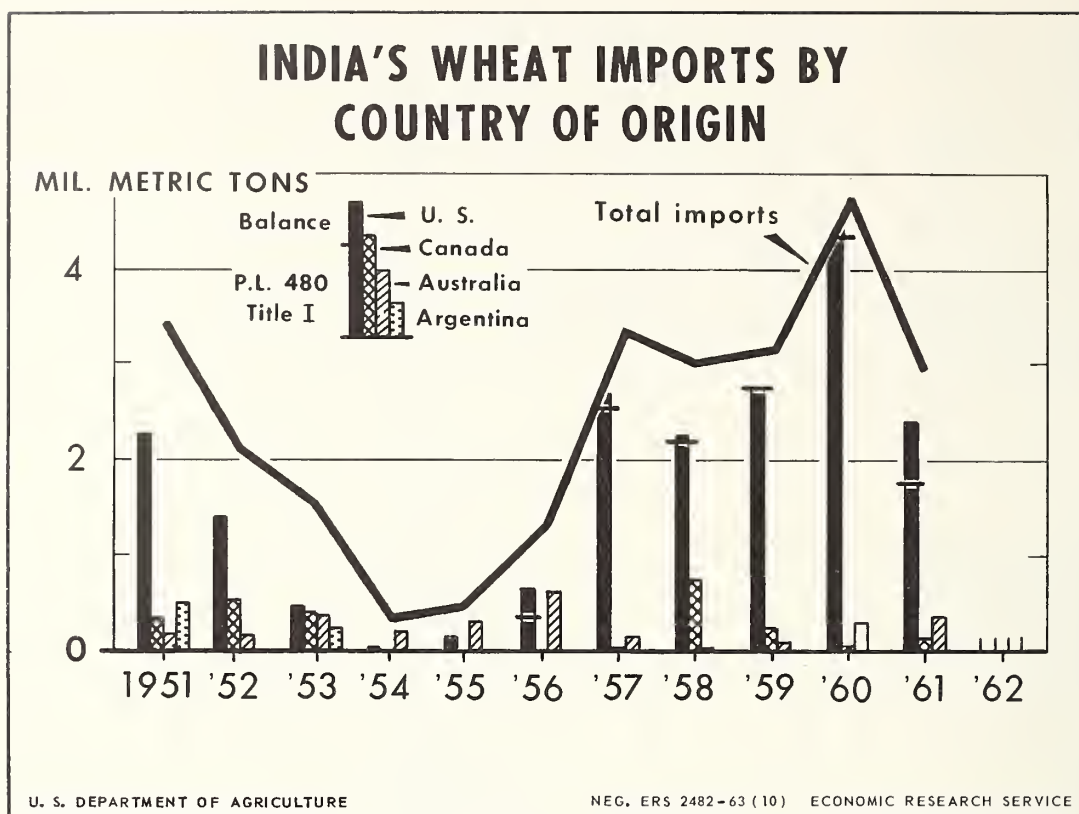


Figure 7

clause in the P.L. 480 agreement makes purchases of U.S. agricultural commodities under this law contingent upon usual purchases from traditional suppliers. Therefore, Australia and Canada continue to be suppliers.

Rice.--Imports of rice apparently were closely related to the level of domestic production until 1960. From more than 700,000 tons in 1951 and 1952, imports fell almost 75 percent in response to a better harvest in 1953. Then they climbed again to 650,000 tons in response to a poorer harvest in 1954. There was a precipitous drop of 50 percent in 1955, then a climb to more than 750,000 tons in the poor crop year of 1957. In 1960 domestic production was 4 million tons (paddy) greater than 1959, yet imports more than doubled to 699,000 tons. The bulk of this increase was from the United States under P.L. 480. A sizable portion, 100,000 tons, came from Egypt under a rupee payment agreement.

The dominant source of rice imports is Burma (table 17). Average imports from Burma over the 11-year period were 340,000 tons annually. The largest shipment from any other single source was 257,000 tons from the United States in 1960. Only in 1951, 1960, and 1961 were imports from Burma less than half the total; in several years Burma accounted for well over 90 percent. Other sources of rice were intermittent. Thailand was significant in 1951 and 1952, with 219,000 and 187,000 tons, respectively. Pakistan provided 161,000 tons in 1951 and Communist China 150,000 tons in 1952.

Recently, the method of payment has been the major factor in selecting alternate suppliers to supplement rice imports from Burma. Of primary significance is a 4-year agreement, signed in 1960 with the United States, for 250,000 tons per year under a local currency purchase arrangement. This agreement is the same as that mentioned earlier

Table 17.--India: Rice imports, value and quantity, by country of origin, 1951-61¹

Country	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961
	----- <u>Value (1,000 dollars)</u> -----										
Burma.....	39,398	60,738	27,892	85,280	30,343	30,107	53,838	39,211	27,376	29,669	15,328
United States.....	0	0	0	0	(²)	7,939	34,140	(²)	(²)	43,478	30,089
Thailand.....	27,922	27,733	(²)	(²)	(²)	(²)	(²)	0	0	0	0
Other.....	³ 29,707	⁴ 26,076	7,524	2,552	4,276	5,740	3,846	706	0	⁵ 9,360	2,874
Total.....	97,027	114,547	35,416	87,832	34,619	43,786	91,824	39,917	27,376	82,507	48,291
	----- <u>Quantity (1,000 metric tons)</u> -----										
Burma.....	309	383	152	635	269	278	532	389	295	336	160
United States.....	0	0	0	0	(²)	48	197	(²)	(²)	257	194
Thailand.....	219	187	(²)	(²)	(²)	(²)	(²)	0	0	0	0
Other.....	³ 233	⁴ 164	41	19	38	53	38	7	0	⁵ 106	30
Total.....	761	734	193	654	307	379	767	396	295	699	384

¹ India's commercial trade statistics (11) are incomplete for this commodity. Therefore, U.S. Dept. Agr. data are used for quantity information, and value is determined using estimated unit values. See table 25. ² Negligible, included in other. ³ Contains 161,000 metric tons from Pakistan and 67,000 metric tons from Communist China. ⁴ Contains 150,000 metric tons from Communist China. ⁵ Contains 106,000 metric tons from Egypt.

for wheat designed to establish stocks in India for price stabilization. Imports from Egypt in 1960 resulted from a bilateral trade agreement providing for rupee payment. This was also designed to encourage Indian exports of tea and coffee to Egypt.

Cotton.--India imports and exports cotton. Imported cottons are higher valued, longer staple varieties, while exports are of shorter staple, lower valued varieties. Cotton exports, averaging about \$30 million per year, have been relatively stable compared with imports. Imports varied during the 1951-61 period from a high of \$245.5 million to a low of \$64.3 million.

Demand for imported raw cotton is influenced by domestic raw cotton production, internal demand, and the export demand for textiles. India is the world's second largest exporter of cotton textiles. The level of cotton imports appears to be climbing significantly.

An interesting aspect of the cotton import pattern by country of origin is the absence of a dominant supplier (table 18). Each supplier has been the leader in terms of value for one or more years of the period. Average annual imports from the principal suppliers range from \$47 million for the United States to \$17 million for Sudan. Egypt and Kenya are evenly spaced in between. These latter two show a declining trend as suppliers. Imports from the Sudan do not indicate any pronounced trend. Imports from the United States show a pronounced decline from 1951-52 to a level of about \$10 million to \$20 million. Exceptions in 1957, 1960, and 1961 resulted from sales for rupees under P.L. 480.

Cashew nuts.--The value and quantity of cashew nut imports indicate a definite upward trend. Between 1951 and 1961 the imported quantity of raw cashew nuts advanced at an average annual rate of 8,000 - 9,000 tons per year. Value went up even more rapidly. Raw nuts are imported in the shell, then shelled, packed, and re-exported.

India imports some 90 percent of the total African production of raw cashew nuts. The principal supplier is Mozambique, supplying approximately two-thirds of the raw nuts (table 19). Tanganyika, also a major supplier, provides a bit less than one-third of the total. Both suppliers have maintained their share of the market without any major shift. Kenya, a small but growing supplier, jumped from 1,500 metric tons in 1957 to more than 5,000 in 1961.

The import unit value for raw nuts is quite variable. A low of \$128 per ton was registered in 1958 and a high of \$173 in 1960. No clear trend in unit value is apparent.

Tobacco.--Imports of tobacco have declined from the high level of 1951 and 1952. As a result of import restrictions they reached a low of \$0.5 million in 1960. The 1951 high was \$4.5 million. At the present time tobacco imports are prohibited except under rupee purchase agreements with the United States and Ceylon. U.S. shipments under P.L. 480 have totaled \$7.8 million since 1957, or well over two-thirds of all tobacco imports (table 15). Imports are of high-quality special tobaccos required for blending with domestic varieties in cigarette manufacturing. Tobacco, however, is a nonfood consumer good and low on the import priority list.

India is also an exporter of tobacco. Exports have ranged from \$20 million to \$30 million annually.

Nonfat dry milk.--Milk is recognized as important in the Indian diet; commercial imports of nonfat dry milk are permitted. Imports are allowed for the express purpose of infant feeding and the preparation of reconstituted and toned milk.

Imports of nonfat dry milk increased steadily from \$2.9 million in 1951 to \$10.4 million in 1956 and remained at about this level through 1961. The level of imports under P.L. 480, Title I has been quite low. However, major shipments of nonfat dry

Table 18.--India: Cotton imports, value and quantity, by country of origin, 1951-61

Country	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961
-----Value (1,000 dollars)-----											
United States.....	71,312	156,980	6,042	31,913	10,958	11,384	46,846	18,298	14,641	65,961	85,329
Egypt.....	91,526	41,628	45,180	51,777	37,722	32,046	20,967	11,701	15,503	32,027	19,481
Kenya.....	37,767	36,168	29,494	30,437	38,514	34,851	11,505	18,475	18,507	21,980	15,989
Sudan.....	29,098	6,671	16,564	3,829	20,243	24,863	15,512	13,983	20,666	18,125	16,555
Other.....	8,347	4,057	7,412	2,757	4,934	9,396	7,032	1,811	3,590	15,293	7,636
Total.....	238,050	245,504	104,692	120,713	112,371	112,540	101,862	64,268	72,907	153,386	144,990
-----Quantity (metric tons)-----											
United States.....	68,291	148,657	6,198	36,762	12,127	12,159	86,184	21,784	19,206	102,528	126,367
Egypt.....	45,839	25,938	44,528	46,452	31,561	29,014	14,137	10,890	17,284	32,256	17,603
Kenya.....	32,550	26,452	33,963	34,791	42,742	41,019	14,345	23,906	28,118	29,174	21,228
Sudan.....	15,148	5,550	18,055	3,138	19,280	21,260	11,249	13,954	27,034	18,596	18,146
Other.....	7,100	3,172	7,680	2,944	4,795	9,796	6,989	2,109	5,095	22,139	10,811
Other.....	168,928	209,769	110,424	124,087	110,505	113,248	132,904	72,643	96,737	204,693	194,155

Source: (14)

Table 19.--India: Cashew imports, value and quantity, by country of origin, 1951-61¹

Year	Mozambique	Tanganyika	Kenya	Other	Total
-----Value (1,000 dollars)-----					
1957.....	10,796	4,000	218	463	15,477
1958.....	10,882	4,766	40	--	15,688
1959.....	8,694	3,784	215	52	12,745
1960.....	10,583	5,481	825	62	16,951
1961.....	12,970	5,693	862	23	19,548
-----Quality (metric tons) ² -----					
1957.....	67,820	25,958	1,545	2,077	97,400
1958.....	83,211	38,658	385	--	122,254
1959.....	62,219	27,644	1,557	349	91,769
1960.....	62,167	31,199	4,547	341	98,254
1961.....	83,783	37,519	5,063	176	126,541

¹ Country of origin data not available 1951-56. Total imports are as follows:

	<u>1951</u>	<u>1952</u>	<u>1953</u>	<u>1954</u>	<u>1955</u>	<u>1956</u>
Value (1,000 dollars)	4,099	9,134	12,450	6,499	6,646	12,018
Volume (metric tons)	31,381	53,428	76,378	63,384	55,909	70,513

² Raw nuts.

Source: (14)

milk have been made for the school lunch program under Title II and for the Foreign Donation Program under Title III.

The United States is the principal supplier of nonfat dry milk. A country breakdown of data is available only for 1957 through 1961. During that time the U.S. share of imports grew from almost 50 percent to slightly over 70 percent. Australia and New Zealand are the other major suppliers, shipping greatly varying amounts from year to year.

Natural rubber.--Rubber imports have shown a steadily increasing trend following a low of \$0.3 million in 1953 (table 15). Imports rose to a high of \$17.2 million in 1960. Two periods of especially rapid growth are evident: one from 1953 to 1956 and the other from 1958 to 1960. This rapid rise is especially impressive in view of the fact that India was a net exporter of rubber prior to World War II. Efforts are being made to reduce imports of items which can be produced domestically. The rapid increase in rubber imports reflects rising industrial demand in India and probably the increasing use of bilateral trade agreements to facilitate trade.

The dominant source of natural rubber is indicated as Singapore in Indian trade statistics (14). Singapore is, however, an intermediate market for rubber from Indonesia and Malaya. Data are not readily available to allow a distinction between these sources.

Other imports.--Major commodities in this section are jute, copra, and sugar. Jute imports were quite significant in 1951, amounting to about \$100 million. Since then, increasing Indian jute production and limitations on jute product manufacturing reduced

the level of imports to \$25 million to \$35 million from 1952 to 1956 and less than \$20 million thereafter. Some high quality jute imports are still required for mixing with the Indian product.

Copra is important as a consistently rising factor in the import picture. Imports rose from \$15 million in 1954 to \$25 million in 1960.

Sugar imports were large in only 2 years. They were valued at \$64 million in 1954 and \$25 million in 1955. These imports resulted primarily from a below-average crop in 1953 and a very poor one in 1954.

U.S. AGRICULTURAL TRADE WITH INDIA⁴

The flow of agricultural commodities between India and the United States is sizable (table 20). From 1951 to 1961, U.S. imports from India averaged \$84 million per year. U.S. exports to India averaged \$195 million.

The United States is India's second largest market. India, likewise, is a leading overseas outlet for U.S. farm products. India is an important but not a leading supplier of farm products to the United States. The United States, however, supplies the largest portion of India's agricultural imports, in some years about one-half of the total.

Imports from India

U.S. imports of agricultural products from India, ranging between \$70 and \$90 million in most years, have been relatively stable (table 21). Cashews and tea have usually accounted for two-fifths of the total, with cashews usually leading. Spice imports, quite large in the early 1950's, declined rapidly as competition in the U.S. market

Table 20.--India: Agricultural trade with the United States, 1951-61

Year	U.S. agricultural imports from India ¹	Total agricultural exports of India ²	U.S. share ³	U.S. agricultural exports to India ¹	Total agricultural imports of India ²	U.S. share ³
	<u>Mil. dol.</u>	<u>Mil. dol.</u>	<u>Percent</u>	<u>Mil. dol.</u>	<u>Mil. dol.</u>	<u>Percent</u>
1951.....	115.6	584.1	19.8	339.5	1,023.6	33.2
1952.....	102.0	467.6	21.8	258.6	764.9	33.8
1953.....	87.9	422.2	20.8	54.2	419.7	12.9
1954.....	82.2	488.8	16.8	44.0	430.3	10.2
1955.....	90.9	582.9	15.6	43.9	365.5	12.0
1956.....	76.9	581.1	13.2	87.1	447.9	19.4
1957.....	71.0	518.3	13.7	252.9	611.9	41.3
1958.....	60.0	536.3	11.2	175.9	472.2	37.3
1959.....	68.8	570.7	12.1	209.1	478.8	43.7
1960.....	79.8	555.9	14.4	421.1	769.3	54.7
1961.....	84.4	599.3	14.1	259.8	570.7	45.1

¹ Source: (8) ² Source: (14). ³ Specifically, the share of U.S. agricultural imports from (exports to) India in relation to the total agricultural exports (imports) of India. Therefore, share is only approximate. The share of agricultural exports to the United States should be a little overstated because of c.i.f. valuation in U.S. data. Share of agricultural imports should be a little understated because of f.o.b. valuation in U.S. data.

⁴ U.S. export and import data for this section are from (8).

Table 21.--United States: Agricultural imports from India, 1951-61

Commodity	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961
-----Million dollars-----											
Cashews.....	19.2	18.7	19.4	17.6	22.1	22.7	23.0	24.1	23.5	26.0	23.6
Tea.....	15.7	14.7	16.5	22.6	24.7	16.9	15.0	15.5	14.8	13.9	15.3
Spices.....	35.1	27.6	20.7	14.4	6.3	5.4	3.4	1.6	1.6	9.6	5.4
Wool.....	6.2	12.3	5.6	7.8	9.1	9.9	6.5	4.9	7.1	3.6	2.9
Castor oil.....	3.1	8.6	8.1	2.3	4.4	6.6	8.4	(¹)	3.7	7.2	(¹)
Goat and kid skins.....	10.0	6.9	6.6	6.1	5.9	4.5	3.6	4.3	5.4	5.1	4.3
Cotton.....	9.9	1.9	2.7	1.5	2.2	.6	.5	1.0	.7	.7	1.4
Coffee.....	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	.4	.4	.3	.4	2.0
Other.....	27.5	11.3	8.3	9.9	16.1	10.3	10.2	8.2	11.7	13.3	² 29.5
Total.....	126.7	102.0	87.9	82.2	90.8	76.9	71.0	60.0	68.8	79.8	84.4

¹ Negligible.² Sugar accounts for \$ 16.8 million.

Source: (g)

from Malaya and Indonesia increased. India has, nevertheless, continued as the leading supplier of spices, closely followed by Indonesia.

India supplies virtually all of the cashew nuts imported into the United States. India supplies the second largest volume of tea (Ceylon leads). India is the leading supplier of goat and kid skins to the United States. India and Brazil supply most of the castor oil imports. U.S. cotton and coffee imports from India are relatively minor.

Exports to India: Total and P. L. 480

The United States is the major source of India's agricultural imports. Exports of U.S. farm products to India averaged \$198 million during 1951-61 (table 22). These exports reached a high of \$425.3 million in 1960. During 1957-61 they averaged over 40 percent of India's total agricultural imports. India has received approximately one-third of P.L. 480 aid since the program began.

The importance and extent of U.S. agricultural exports to India varied widely during 1951-61. U.S. exports were high during the drought years of 1951 and 1952. By 1954, they had dropped almost 90 percent to a low of \$44 million. With the initiation of P.L. 480 in 1956, U.S. exports rose rapidly to \$253 million in 1957 and averaged \$268 million for the remainder of the period. About 80 percent of all U.S. agricultural exports to India from 1957 through 1961 were financed by P.L. 480 local currency purchases (table 23).

The composition of U.S. exports to India is the same as the major composition of India's total imports: wheat, cotton, and rice in order are most important. Wheat alone has accounted for more than half of U.S. agricultural exports to India since 1957. The United States is, on the average, the most important supplier of cotton. It has held this position in recent years because of P.L. 480 agreements. Rice imports from the United States appear to be significant solely because of P.L. 480.

Table 22.--United States: Agricultural exports to India, 1951-61¹

Year	Wheat	Cotton	Rice	Other grains	Nonfat dry milk	Tobacco	Other	Total
-----Million dollars-----								
1951.....	176.6	126.7	(²)	28.4	.1	5.0	2.7	339.5
1952.....	122.6	94.7	(²)	35.8	(²)	4.3	28.2	285.6
1953.....	33.3	5.7	(²)	10.5	.9	1.3	2.5	54.2
1954.....	1.5	37.6	(²)	(²)	1.3	1.3	2.3	44.0
1955.....	8.7	3.0	2.4	(²)	2.1	2.9	24.8	43.9
1956.....	35.8	25.8	6.6	(²)	2.6	1.7	14.6	87.1
1957.....	177.3	36.9	20.4	(²)	3.8	2.7	11.8	252.9
1958.....	142.6	11.4	(²)	6.7	2.3	2.9	10.0	175.9
1959.....	171.6	15.1	(²)	6.5	3.8	1.9	10.1	209.0
1960.....	270.3	88.4	46.5	8.3	1.1	.5	10.2	425.3
1961.....	148.3	60.2	25.8	6.5	2.4	1.9	14.7	259.8

¹ U.S. export data are not exactly comparable to U.S. export programs data (table 23), due to lags in reporting and differences in valuation.

² Negligible.

Source: (8)

Table 23.--United States: Value of exports to India under Public Law 480, Title I, local currency purchase agreements, 1956-61

Commodity	1956	1957	1958	1959	1960	1961
	-----Value (million dollars)-----					
Wheat.....	20.1	149.5	136.3	169.9	259.0	107.7
Rice.....	5.5	20.9	0	0	37.5	19.8
Cotton.....	6.3	18.8	3.8	12.2	71.0	40.1
Tobacco.....	0	1.1	2.8	1.9	(²)	2.0
Nonfat dry milk.....	0	0.1	1.2	1.2	0	0
Total.....	31.9	191.4	150.8	191.7	374.9	176.2

¹ U.S. export programs data are not exactly comparable to U.S. export data (table 22) because of a difference in reporting lags and a difference in valuation.

² Less than 0.1.

Sources: (10 and 11.)

Other significant but less important commodity exports to India are nonfat dry milk and tobacco. If there were no rupee payment arrangement, tobacco would not be exported to India under present restrictions. The Indian government still permits limited commercial imports of nonfat dry milk. Therefore, the P.L. 480 program may not be quite so influential in determining the level. The role of the United States as a supplier of nonfat dry milk to India, however, probably would be affected if there were no program.

AGRICULTURAL IMPORTS AND FOOD AVAILABILITY

India's agricultural imports are largely foodstuffs. Agricultural exports are predominantly nonfood. This is not coincidence; the food-nonfood composition of imports and exports reflects one of India's most serious problems, a shortage of food.

According to the World Food Budget, a USDA study assessing the adequacy of national diets based on 1958 consumption levels, the average diet in India was deficit, according to four of the five nutritional indicators used: energy, fat, animal protein, and total protein (4). Energy intake was 250 calories per capita below the recommended daily minimum of 2,300. Deficiencies in the other three indicators were greater than 10 percent.

Given these circumstances, the foodstuff imports take on added significance. Without imports the deficits certainly would have been much larger. Wheat and rice imports on the scale envisaged in the current 4-year Food for Peace agreement with India provide, on the average, nearly 100 calories per person per day. Wheat and rice also boost protein consumption. Without these food grain imports, constantly recurring food crises would be commonplace.

CONCLUSIONS

- (1) The value of India's total and agricultural exports remained essentially static during the 1951-61 survey period, while world exports increased 50 percent.
- (2) No major changes occurred in the composition of India's agricultural exports.

- (3) The several measures India has taken since 1957 to boost exports have not substantially increased total or agricultural exports.
- (4) A significant reduction in agricultural imports is likely only after crop yields have been substantially increased.
- (5) The relationship between India's agricultural imports and agricultural production is unique; there is large domestic production of every major import commodity.
- (6) The predominance of the United States as the leading supplier of agricultural products to India during the 1951-61 survey period is closely related to aid supplied under the Food for Peace program (P.L. 480).
- (7) U.S. food shipments to India under the Food for Peace program have greatly reduced the foreign exchange India would otherwise have had to commit to agricultural imports, thereby permitting and sustaining Indian industrial growth.
- (8) If India does not succeed in its efforts to expand exports, it is likely to have difficulty financing future developments.

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APPENDIX

Table 24 compares Indian wheat import statistics from several sources. The value comparisons illustrate the magnitude of the adjustments that were made using estimated unit values and USDA figures for quantity.

Unit value estimates were determined as follows:

1957-61--Unit values were computed for each country for each year using the value and volume information from the Monthly Statistics on the Foreign Trade of India (14).

1951-56--Because value and volume data by country of origin are not available in the Indian trade statistics for these years, the following estimates were used:

Imports from the United States: The differences between unit values calculated from U.S. value and volume data (8) and those calculated from Indian commercial trade data were assumed to be predominately freight charges. The average difference in U.S. and Indian unit values for 1957-61 was \$19.8 per metric ton. This amount was then adjusted for each year, 1951-56, using FAO freight rates for grains from Northern China to Antwerp/ Rotterdam/Hamburg. This adjusted freight charge was added to the unit value computed from U.S. volume and value data, and the sum was used as the final unit value for imports from the United States.

Imports from Canada and Australia: The value appearing in the Monthly Statistics of the Foreign Trade of India was used, with one exception: Australia, 1956--because of the apparent difficulty that year with the value data, a unit value of \$86 was substituted.

Imports from Argentina and other sources: The unit value for Australia was used (computed using the Indian Commercial trade statistics value data and the USDA volume data except for 1952). Negligible imports from Argentina are indicated for 1952 on the basis of the Bulletin on Food Statistics table, Imports on Government Account.

Table 25 compares the data on imports of rice by India from several data sources. The value comparisons illustrate the magnitude of adjustments in the data in table 17 in this report. Values for table 17 were computed using USDA volume estimates and unit values estimated as follows:

Imports from the United States: Unit value equals the IMF price for U.S. rice plus FAO freight charges for route Northern China to Antwerp/ Rotterdam/ Hamburg.

Imports from Burma, Thailand, and other: Unit value equals IMF price for Burma rice plus FAO freight charges.

These comparisons of data on rice and wheat import volumes illustrate the deficiency in India's foreign trade statistics when commodities are purchased on government account. There are quite good correlations between USDA volume estimates and the Bulletin on Food Statistics table, Imports on Government Account.

Table 26 and 27 present in tabular form the information given in figures 1 and 2 of the text.

Table 24.--India: Wheat imports--Comparison of data by sources, 1951-61

Country of origin	Source of data	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961
		Value (thousand dollars)										
United States.....	Table 16 ¹ MSFTI ²	262,541 181,114	157,190 202,598	42,177 48,404	1,986 (³)	13,048 10,637	62,631 1,417	239,316 72,174	186,342 169,439	227,518 214,592	334,804 160,571	187,187 168,381
Canada.....	Table 16 MSFTI	28,013 28,013	47,660 47,660	32,659 32,659	(³) (³)	827 827	(³) (³)	1,008 530	61,524 39,290	11,606 13,765	2,884 1,270	12,796 4,094
Australia.....	Table 16 MSFTI	15,886 15,886	14,130 14,130	29,859 29,859	14,184 14,184	21,542 21,542	53,942 1,143	13,731 261	1,142 5,926	8,018 2,345	21,806 6,388	31,100 24,737
Argentina.....	Table 16 MSFTI	42,357 (³)	(³) (³)	19,571 (³)	(³) (³)	(³) (³)	(³) (³)	(³) (³)	(³) (³)	(³) (³)	(³) (³)	(³) (³)
Total	Table 16 MSFTI	359,626 229,368	218,980 264,412	124,266 110,929	23,412 14,531	35,417 33,007	121,303 6,067	254,055 72,965	249,008 215,556	247,142 230,482	359,494 168,229	231,083 197,212
		Quantity (thousand metric tons)										
United States.....	Table 16 Bul. Food Stat. ⁴ MSFTI	2,279 1,838 (⁵)	1,429 1,791 (⁵)	491 586 (⁵)	26 (³) (⁵)	140 131 (⁵)	632 430 (⁵)	2,695 2,717 813	2,237 1,928 2,034	2,778 3,177 2,620	4,388 4,040 2,103	2,406 2,538 2,161
Canada.....	Table 16 Bul. Food Stat. MSFTI	343 333 (⁵)	534 533 (⁵)	423 423 (⁵)	(³) (³) (⁵)	9 (³) (⁵)	(³) (³) (⁵)	11 11 6	765 772 492	259 278 182	38 25 17	158 158 51
Australia.....	Table 16 Bul. Food Stat. MSFTI	195 195 (⁵)	174 174 (⁵)	380 380 (⁵)	200 200 (⁵)	311 311 (⁵)	627 627 (⁵)	168 170 3	15 15 79	111 98 33	309 321 90	396 396 315
Argentina.....	Table 16 Bul. Food Stat. MSFTI	521 521 (⁵)	(³) 0 (⁵)	249 249 (⁵)	(³) (³) (⁵)	(³) (³) (⁵)	(³) (³) (⁵)	(³) (³) (³)	(³) (³) (³)	(³) (³) (³)	(³) (³) (³)	(³) (³) (³)
Total.....	Table 16 Bul. Food Stat. MSFTI	3,468 3,018 (⁵)	2,137 2,498 (⁵)	1,543 1,638 (⁵)	328 200 (⁵)	460 442 (⁵)	1,314 1,115 (⁵)	2,874 2,898 822	3,017 2,716 2,616	3,148 3,553 2,834	4,735 4,386 2,210	2,960 3,092 2,526

¹ Refers to wheat import table in this report.² MSFTI = Monthly Statistics of the Foreign Trade of India (14).³ Negligible, not available, or none.⁴ Bulletin on Food Statistics (16).⁵ Not available.

Country of origin	Source of data	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961
							Value (thousand dollars)					
Burma.....	Table 17 MSFTI ¹	39,398 35,290 (²)	60,738 57,682 (²)	27,892 28,648 (²)	85,280 84,953 (²)	30,343 37,757 (²)	30,107 807 (²)	53,838 19,667 (²)	39,211 89,024 (²)	27,376 18,988 (²)	29,669 22,838 43,478 4,920 (²)	15,328 11,540 30,089 12,362 0 (²)
United States....	Table 17 MSFTI	0 (²)	0 (²)	0 (²)	0 (²)	0 (²)	7,939 (²)	34,140 13,458 (²)	942 (²)	125 (²)	0 (²)	0 (²)
Thailand....	Table 17 MSFTI	27,922 26,773	27,733 3,121	(²) 213	(²) (²)	(²) (²)	(²) (²)	(²) (²)	0 (²)	0 (²)	0 (²)	0 (²)
Other.....	Table 17 MSFTI	29,707 21,049	26,076 41,570	7,524 2,064	2,552 689	4,276 1,697	5,740 680	3,846 2,365	706 2,492	0 30	9,360 9,410	2,874 6,143
Total.....	Table 17 MSFTI	97,027 85,817	114,547 102,407	35,416 30,981	87,832 85,748	34,619 39,598	43,786 1,487	91,824 35,490	39,917 92,458	27,376 19,268	82,507 37,168	48,291 30,045
							Quantity (thousand metric tons)					
Burma.....	Table 17 MSFTI Bul. Food Stat. ³	309 (⁴) 309	383 (⁴) 382	152 (⁴) 152	635 (⁴) 635	269 (⁴) 267	278 (⁴) 278	532 167 517	389 562 390	295 199 295	336 225 336	160 163 160
United States....	Table 17 MSFTI Bul. Food Stat.	0 (⁴) 0	0 (⁴) 0	0 (⁴) 0	0 (⁴) 0	0 (⁴) 0	48 (⁴) (²)	197 89 197	(²) 6 (²)	(²) 1 (²)	257 44 257	194 109 194
Thailand....	Table 17 MSFTI Bul. Food Stat.	219 (⁴) 219	187 (⁴) 187	(²) (⁴) 2	(²) (⁴) 0	(²) (⁴) 0	(²) (⁴) 0	(²) 0 0	0 0 0	0 0 0	0 0 0	0 0 0
Other.....	Table 17 MSFTI Bul. Food Stat.	233 (⁴) 233	164 (⁴) 165	41 (⁴) 24	19 (⁴) 0	38 (⁴) 0	53 (⁴) 52	38 21 34	7 17 7	0 0 0	106 100 106	30 27 30
Total.....	Table 17 MSFTI Bul. Food Stat.	761 (⁴) 761	734 (⁴) 734	193 (⁴) 178	654 (⁴) 635	307 (⁴) 269	379 (⁴) 330	767 277 748	396 585 397	295 200 295	699 359 699	384 299 384

¹ Monthly Statistics on the Foreign Trade of India (14).

² Negligible, not available, or zero.

³ Imports on Government Account, Bulletin on Food Statistics (16).

⁴ Not available.

Table 26.--India's external financial indicators

Year	Exports	Imports	Gold and foreign exchange	Foreign currency debt
-----Million dollars-----				
1951.....	1,611	1,793	1,945	--
1952.....	1,295	1,696	1,796	--
1953.....	1,116	1,208	1,862	--
1954.....	1,182	1,297	1,867	--
1955.....	1,276	1,413	1,866	296
1956.....	1,300	1,725	1,435	340
1957.....	1,379	2,243	942	443
1958.....	1,221	1,843	722	779
1959.....	1,308	1,986	814	1,281
1960.....	1,331	2,293	670	1,735
1961.....	1,396	2,166	665	2,289

Source: (17)

Table 27.--Indian and world export trends
(Indices of value)

Year	India's total exports	India's agricultural exports	World exports
1951-1953..	100	100	100
1954.....	87	100	103
1955.....	95	119	112
1956.....	93	118	125
1957.....	100	105	134
1958.....	89	109	127
1959.....	96	116	135
1960.....	97	113	151
1961.....	104	122	157

Source: Table 1 and (17)





